REVIEW

RESEARCH CONTRACT MANAGEMENT

AT THE NATIONAL INSTITUTES OF HEALTH

"CISCO REPORT"

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF HEALTH, EDU
PUBLIC HEALTH S

69.43

TO : Members, "Increasing Knowledge" Health Team

DATE: May 21, 1969

FROM : Chairman, "Increasing Knowledge" Health Team

SUBJECT: Report of May 1, 1969

Please substitute the attached Appendix I of the Health Team's report of May 1, 1969, and also make the corrections as shown on the Errata Sheet.

Thomas J. Kennedy, Jr., M.D.

Attachments

cc:
OD Staff
Mr. Sauvain
Dr. Schambra

HELP ELIMINATE WASTE HEW COST REDUCTION PROGRAM

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* Read draft Reports and Issue Papers and discussed in small groups with staff. Formal reaction to follow.

ERRATA SHEET

May 21, 1969

INCREASING KNOWLEDGE Health Team - Report of May 1, 1969

PROGRAM REPORT AND PLAN ON EXTRAMURAL RESEARCH - Part I

1. Page 65 - Question 3 should read: Quantification of outputs and show levels of last three years.

2. Page 89 - Table 8: should be page 101.

3. Page 94 - Table 7: Leopold Ruzecker should read: Leopold Ruzicka

PREFACE

In a letter dated September 7, 1967 to the Director, National Institutes of Health, in connection with the award of a certain research contract, the Secretary of Health, Education, and Welfare stated that:

> "I have asked the Procurement and Supply Management Division in Mr. Simpson's office, in coordination with Dr. Lee's staff, to review the contract policies, practices and procedures of NIH jointly with your staff. I have asked him to make the necessary arrangements for this joint review directly with you. I know we can count on your full cooperation."

In compliance with the direction of the Secretary, a joint DHEW-NIH review of the contract policies, practices, and procedures of the National Institutes of Health was conducted during the period October 28, 1968 through February 28, 1969.

Members of the team conducting the review included:

Austin B. Castellano*	DHEW
Murray Weinstein	DHEW
James Fornataro	DHEW
John Grossbaum	OE
Frederick Lash	NIH
Betty Jolliffe	NIH
Ralph Williams	NIH

* Designated Team Leader

The team wishes to express its appreciation for the full cooperation and assistance provided by the Associate Director for Administration, NIH, and all the personnel of the NIH organizations discussed in the report.

1. In the interest of brevity, the findings generally do not identify functional areas or organizational entities in which performance was satisfactory. No significant purpose would be served by reporting all areas in which performance was adequate but not uniquely superior.

2. The NIH desire to take advantage of the survey's evaluation of the NIH research contracting operation was indicated by the intensive and earnest participation and response of executive management in the various meetings and discussions conducted during the period of the review.

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S U M M A R Y

The report is based on studies of NIH policies and procedures, reviews of management organization, sampling of currently active contracts and interviews with NIH personnel involved in research contract activity.

Efforts of the team were largely concentrated on the five institutes of NIH with the greatest contract activity (National Cancer Institute, National Heart Institute, National Institute of Allergy and Infectious Diseases, National Institute of Neurological Diseases and Stroke, National Institute of Arthritis and Metabolic Diseases), the National Library of Medicine and the Bureau of Health Professions, Education and Manpower Training. This grouping afforded coverage of ninety percent of the research contract dollars and eighty-three percent of the number of research contracts awarded in Fiscal Year 1968.

The team reviewed one hundred contracts selected from each of the organizations with conscious effort made to cover all types of contracts and with reasonable dispersion by dollar level.

The Research Contracts Branch, Office of Administrative Services was organizationally placed as the Research Contracts Section, Supply Management Branch until January 1969. Throughout this report we will refer to it as The Research Contracts Branch (RCB) for the sake of uniformity. During the last ten years the workload of RCB has increased from 172 contract actions for $10,000,000 in FY 1958 to 1,989 contract actions for $120,000,000 in FY 1968.

The team concluded that research contracting at NIH is in essential compliance with Federal Procurement Regulations and DHEW policies and procedures. One notable variance between the procurement policy found in HEWPR and the policy at NIH is the assignment of responsibilities for the procurement cycle. At NIH those parts of the procurement cycle which involve early procurement planning, the solicitation of sources, the preparation of Requests for Proposal, the evaluation of proposals and the selection of a contractor are assigned responsibilities of the institutes. RCB with one minor exception, the release of synopses for publicizing in the CBD, does not enter into the procurement cycle until a request is received from program requesting negotiation of a contract. RCB is responsible for the negotiation and execution of the contract and for nonscientific administration of the contract after execution. It is our understanding that this division or responsibilities is not unknown at department level, since the Director, NIH, on more than one occasion has advised DHEW of the manner in which responsibilities for research contracting have been assigned and other surveys of NIH contracting practices have mentioned it. Since the preponderance of research contracts at NIH are heavily oriented toward the biomedical field, it is understandable that early and intensive participation by the scientific staff is absolutely essential to define project goals and to appraise capabilities of scientific sources. Nevertheless, it was the feeling of the team that earlier participation in the procurement cycle by representatives of RCB is essential to increase their understanding of the problems and contribute to a more effective procurement process.

In the light of the substantial growth of the research contracting activity at NIH and the strong possibility that the growth will continue, the team recommends a reorganization at NIH placing the research contracting function in a newly-created Office of Contract Policy and Review under the Associate Director for Administration, Office of the Director, NIH. The Director of this Office should have status and grade level comparable to the other Office Directors in Administration. The Office should have a policy planning and review staff and two operating service branches. The first duty of the Office will be to recommend to the Associate Director for Administration the decentralization of the research contract function to those institutes which have sufficient volume of contract work to justify the assumption of this function and the capability of discharging the responsibilities. It will be the responsibility of the Associate Director for Administration to decide which institutes are to receive this function. (The details of this recommendation are found in Chapter I of the report.)

Many other recommendations are contained in the report. Since they concern detailed procedures and operational practices involved in the procurement process, it was not considered necessary to repeat them in this summary.

SUMMARY OF RECOMMENDATIONS

This report includes recommendations that are found following the appropriate discussion in the body of the report. These recommendations are listed below by report chapter and identified further by report page number.

CHAPTER I -- ORGANIZATION OF THE NIH NEGOTIATED CONTRACTING ACTIVITIES

CHAPTER II -- POLICIES AND PROCEDURES

Chapter I. Organization of the NIH Negotiated Contracting Activities

A. The NIH Mission and Organization

1. Recent History

On April 1, 1968, by Reorganization Order, three bureau-level organizations of the Public Health Service, namely, the National Institutes of Health--the research arm of PHS, the Bureau of Health Manpower--its manpower arm, and the National Library of Medicine--its communications arm, were brought together and reconstituted as an operating agency of the Department, the National Institutes of Health.

The National Institutes of Health was, therefore, in the throes of a major reorganization during the period the team was studying its negotiated contracting activities. Although the basic restructuring of the NIH has been completed and its statement of organization functions and delegations of authority were approved by the Secretary on December 26, 1968, the physical relocation of offices necessitated by the reorganization is still in process. The defining and establishment of a number of internal organizational relationships, particularly between the operating program areas and the central technical, administrative, and service staff offices in the Office of the Director, has not been completely finished.

2. Mission and Organization

The mission of the National Institutes of Health is to provide leadership and direction to research, manpower and communications programs designed to improve the health of the people of the United States through the following activities:

a. Conducts and supports research in the causes, diagnosis, prevention, and cure of diseases of man, in the processes of human growth and development, in the biological effects of environmental contaminants, and in related sciences; and supports the training of research personnel, the construction of research facilities, and the development of other research resources.

b. Administers programs to meet health manpower requirements for the nation, primarily through the support of education and training, and to give general support to institutions engaged in education and research in the health field.

c. Directs programs for the collection, dissemination, and exchange of information in medicine and health, including the development and support of medical libraries and the training of medical librarians and other health information specialists.

d. Administers Federal standards and licensing activities controlling the safety, purity, and potency of certain viruses,

serums, toxins, and anologous products sold in interstate commerce.

The organizational structure established by the National Institutes of Health to carry out its operating programs and activities, and to provide agency programs and activities with the central leadership, direction, coordination and resources support needed to accomplish the NIH mission is shown in Exhibits 1 and 2.

The mission, organization and recent history of the National Institutes of Health have been outlined in order to give readers of this report some insight into the broad scope, diversity and complexity of the agency's overall program; and into some of the problems inherent in organizing and administering its negotiated contracting activities.

B. Present Organization of Negotiated Contracting Activities

1. General

On April 1, 1968, when the three operating bureaus of the Public Health Service were reorganized into one operating agency, each held a delegation of contracting authority in accordance with the provisions of the DHEW Procurement Manual 3-75. The National Institutes of Health and the Bureau of Health Manpower had negotiated contracting staffs and were exercising their contracting authority, while the National Library of Medicine which was in the process of recruiting a Contracting Officer was being serviced by

the NIH. On or about July 1, 1968, the new NLM Contracting Officer reported for duty and arrangements were made for the NIH contracting staff to continue servicing NLM's existing contracts, and for the NLM Contracting Officer to handle all new contracts.

At the present time, there are four negotiated contracting organizations, headed by Contracting Officers, within the National Institutues of Health. Pertinent facts on the organizational location, personnel staffing, and operations of each follow.

2. BEMT

The Contracts Staff, which negotiates and administers contracts in direct support of the programs administered by the divisions of the Bureau of Health Professions Education and Manpower Training (BEMT), is located in the Office of Administrative Management.

This Staff has a total of 8 employees, including a Contracting Officer, GS-14, five Contract Specialists, GS-12/13, and two Clerks. The BEMT Contract Specialists purportedly are involved in all phases of the contracting process from the time the contract requirement is determined until the contract is closed out. The team found, however, that although the request for a contract proposal (RFP) is prepared in final form and mailed out by the Contract Staff and the contractor's proposal is received by that Staff, the BEMT Contract Specialists are not involved in the pre-solicitation phase of contracting. As a result, the procurement team relationship so essential to effective contracting operations

does not exist, in any meaningful way, between the members of the Contract Staff, the BEMT program divisions, and the Office of Financial Management, ADA.

BEMT, as it is presently constituted, represents a merging and restructuring of the functions and personnel formerly assigned to the Bureau of Health Manpower (BHM), the Division of Research Facilities and Resources (DRFR), and certain construction activities of the National Library of Medicine. Therefore, contract workload data for prior years is not readily available, particularly since BHM was established as a PHS operating bureau in January 1968. BEMT's contract workload for FY 1967-1968 is shown in Chart "A", Exhibit 3, and its FY 1968 contract workload by dollar range is shown in Chart "B", Exhibit 5.

3. NLM

The Contracting Officer, who negotiates and administers new contracts in direct support of the National Library of Medicine program, is assigned to the Office of Administrative Management and reports directly to the Executive Officer, NLM. At the time the team reviewed NLM's contracting activities, the NLM Contracting Officer had processed only 2 or 3 new contracts. Although this is too small a sample on which to base any conclusions, we believe that effective coordination and good working relationships will be established between the Contracting Officer and NLM's program officials if the plans of the Executive Officer are effected.

Based on the new and renewal contract workload generated by NLM during the last six fiscal years, we seriously question whether a separate contracting activity is justifiable. Even if the NLM contract workload continues to increase during FY 69 and 70 at the same rapid rate as it has in the past, only a one-man operation, which is neither efficient or economical from an agency standpoint, can be envisioned.

The total number of NLM contract actions of all kinds processed by RCB during FY 1968 is shown in Exhibit 4. The number of new and renewal contracts by dollar range, in FY 1968 is shown in Exhibit 5; while the dollar amounts of NLM contracts in FY 63-FY 68 are found in Exhibit 6.

4. SMB-OAS

Within the Supply Management Branch, Office of Administrative Services, under the Associate Director for Administration (ADA), there is a Negotiated Contracts ~~Unit~~ Section, staffed by four contract specialists and two clerks, which provides certain central contracting services to the bureaus, research institutes and divisions, and offices of NIH. In general, this SMB ~~Unit~~ Section negotiates contracts for technical equipment and supplies other than developmental; professional services; management consultant services; personnel training; normal volunteer services; field leases; licenses for the operation of concessions; animals other than those involving the development of new strains; conferences, seminars, and workshop

services; motion picture productions, rentals, filming, or processing; and all negotiated contracts, other than R&D, not in excess of $10,000. (Contracts for architectural and engineering services are also negotiated by SMB, but not by this ~~Unit~~ Section).* In Fiscal Year 1968 this ~~Unit~~ Section negotiated 314 contracts with a dollar value of $4,933,355 and processed 212 technical and/or professional service contracts in a total amount of $594,718, or a grand total of 526 contracts with a total dollar value of $5,528,073. The balance of contracting accomplished by SMB is done by formal advertising and totaled approximately $19 million in FY 1968.

The team did not review the operations of the Negotiated Contracts ~~Unit~~ Section, SMB, in any depth, but we did consider the organizational placement of this ~~Unit~~ Section. If traditional Government procurement practices were followed, the contracts and personnel of this operating ~~Unit~~ Section would be reassigned to the Research Contracts Branch, OAD; and the team sees certain advantages, primarily related to personnel utilization and career development, in this concept. However, considering the number and dollar value of the contracts processed and the fact that the procurements are primarily station-support or closely related thereto, we believe a separate ~~Unit~~ Section can be justified and recognize the advantages of keeping this operating ~~Unit~~ Section in SMB with the other central procurement and supply management units.

*PPM No. 18, dated July 1, 1968, defines the categories of contracts negotiated and administered by this ~~Unit~~ Section of SMB and those negotiated and administered by the Research Contracts Branch, OAS.

5. RCB - OAS

The Research Contracts Branch, which is located in the Office of Administrative Services under the Associate Director for Administration (ADA), negotiates and administers all research and development contracts and all other negotiated contracts exceeding $10,000 in dollar amount generated by the Office of the Director and the Research Institutes and Divisions (I/Ds) of the National Institutes of Health, and all renewal contracts generated by NLM.

The Research Contracts Branch was elevated to the branch status on January 24, 1969. Prior to the recent reorganization of NIH, it was an organizational segment of the Supply Management Branch, and called the Research Contracts Section.

Since the RCB performs the preponderant portion of all NIH negotiated contracting, its organizational structure, staffing, workload, operating responsibilities, and relationships with the I/Ds will be discussed in more detail than the BEMT and NLM negotiated contracting staff offices.

a. Organizational Structure -- The Branch has four Negotiation Sections, a Contract Administration Section, and a staff office under the Office of the Branch Chief.

The Negotiation Sections are organized on a contractor basis (assigned alphabetically) rather than by I/D's to be serviced. Based on the division of responsibilities and authorities currently existing between RCB and the I/Ds, this system of organizing has certain advantages. As pointed out by the Branch Chief, it affords the greatest flexibility in equalizing workload and permits the negotiators to become very knowledgeable about the organization, performance, and business practices of the contractors assigned to their respective section. However, it is not the system he would select if his negotiators were involved directly in the contracting process during the pre-solicitation and solicitation phases.

Contract administration is assigned to the Administration Section as soon as the contract has been negotiated and is the responsibility of this Section until contract close-out (except for technical performance of the contractor, which is the responsibility of the cognizant Project Officer assigned by Program). This Section also prepares all statistical and related reports, maintains the official contract files, prepares all contracts in final form, and performs general clerical and typing services for the Branch.

Unlimited contracting officer authority has been delegated to the Branch Chief and his deputy. The Head of each Negotiation Section and the Head of the Administration Section have contracting officer authority which is administratively limited to $100,000.

Price and cost analysis (discussed at length in Chapter V) is not an assigned function of RCB, but rather is a functional responsibility of the Contract & Grants Finance Analysis Branch (CGFAB), Office of Financial Management. (CGFAB also services the contract staffs of BEMT and NLM.)

Accountability for Government-furnished property and contractor-acquired property under cost-type contracts is maintained by the Supply Management Branch, OAS.

Legal advice and assistance is provided on an as-required basis by the Office of General Counsel, DHEW.

b. Staffing -- As of December 31, 1968, the RCB's operating strength totaled 41 employees, 28 of whom were Contract Specialists or Officers, ranging in grade from GS-9 to GS-14 (Branch Chief), and 13 of whom were Clerks, Typists, and Stenographers. In February 1969, RCB was authorized to hire six more negotiators, at the GS-12 level, in order to handle its increased workload, thus bringing the total number of authorized positions up to 47.

Of the 11 GS-13/14 employees, all have college degrees, including four with postgraduate degrees (three of these are LL.B's). Of the 17 employees in grades GS-9 through 12, over three-quarters have some college training and over half have college degrees. Of the 24 employees in grade GS-11 or higher, 16 have 10 years or more procurement experience, while 9 have 20 or more years in procurement work. A large number of the staff have taken advantage of the specialized contracting courses available at GSA, the Department of Agriculture, local universities, etc.

Based on this, we conclude that the RCB personnel responsible for NIH's major contract procurements are equipped, from both an educational and experience standpoint, to negotiate and administer contracts.

c. Workload - Statistics on RCB's workload are shown in the attached tables, as follows:

Exhibit 3, Chart B: New and renewal contracts negotiated by RCB, showing number, dollars, and percentage of totals, by quarter, during FY 1967 and FY 1968.

Exhibit 4, RCB contract actions, FY 1968, showing number and dollar amount obligated each quarter by major sponsors.

Although the dollar amount of a contract is not necessarily an index to its complexity from a contracting standpoint, this is often the case, and based on our review of RCB contracts in all dollar ranges, we noted that the larger dollar contracts, particularly those of the cost reimbursement type, were much more complex than those in smaller dollar amounts and require a higher degree of analysis and negotiating expertise. In order to indicate the relative difficulty level of RCB's workload, the number of new and renewal contracts, by dollar range, negotiated in fiscal year 1968 is shown as Exhibit 5.

These workload statistics point up two important facts. First, 69% of the total contracts negotiated by RCB in FY 1968 were generated by five Institutes and the Library of Medicine. Second, and more significant, over 60% of all contracts were awarded and over 58% of the contract dollars were obligated during the last quarter of FY 1968.

Heavy workloads during the last quarter of the fiscal year are not uncommon in government procurement offices. But, 60% of the total negotiation workload occurring in the last quarter is excessively high, particularly when the negotiators usually have not been involved in the procurement, at least in any substantive way, until the requests to negotiate are received. Excessively heavy workloads in the fourth quarter are not new to RCB, but have been experienced for the last several fiscal years. By heavy use of overtime and negotiating as many renewals and new contracts as possible by telephone, the workload is accomplished each fourth quarter under conditions of stress and pressure of time which mitigate against most effective job performance. Unfortunately, the problem of the fourth quarter workload and the overtime situation cannot be solved by RCB, nor can the responsibility be placed on the Institutes and Divisions serviced, although the problem might be alleviated slightly by better procurement planning and scheduling. In fact the solution is beyond the province of NIH to control, since this problem starts with the late approval of appropriations and builds up and is further aggravated by late apportionments and the restrictions placed by the Bureau of the Budget and the Department on incurring obligations and expenditures.

d. Assignment of Contracting Functions

Contrary to accepted government procurement practices and in conflict with Department policy as set forth in Chapter 3-1.452-1(a) of the HEW Procurement Regulations, the research contracting functions of NIH are divided between the Research Institutes and Divisions and the Research Contracts Branch. Specifically, the I/D's are assigned responsibility for and perform all pre-award functions and activities, except the synopsizing of proposed procurements and the obtaining or making of required findings and determinations which are performed by RCB, RCB is assigned responsibility for and performs the contract negotiation and the post-award contract administration (except for the scientific monitoring of performance) and contract close-out functions.

This division of responsibility for the functions involved in the procurement process means that the Contracting Officer, who exercises the contracting authority and is officially responsible for the legality and business soundness of each contract awarded and for insuring that applicable government procurement regulations are complied with during each phase of the procurement cycle, is in the untenable position of being held responsible and accountable for activities over which he exercises no real control and (except when advice and assistance have been requested by Program) in which he or his subordinates have not been substantively involved until the request to negotiate a contract with a

recommended contractor is received. In addition to the problems inherent in splitting responsibility and authority, the fact that RCB is normally not meaningfully involved in the pre-solicitation, source selection, solicitation and evaluation of proposals, and the contractor selection steps of the procurement cycle--the entire pre-award phases - and the fact that RCB is dependent upon another office over which it also exercises no managerial control for the cost and/or price analysis of contractors' proposals have resulted in problems of coordination and communication. This condition also has resulted in the duplication of efforts, and in the handling of most procurements in a relatively routine manner.

Moreover, even though RCB might note, during its review of the pre-award processing of an individual procurement, that the source evaluation and selection had certain deficiencies or that another type of synopsizing or another form of contract would have been more suitable in that particular case, it is difficult at this stage in the procurement process for RCB to effect any changes, particularly since many are judgmental matters that cannot be corrected retroactively or reversed without upsetting the entire procurement. One must also recall that with over 60% of the total research contract workload and over 58% of the total contract dollar obligations occurring in the fourth quarter of the fiscal year, the RCB staff does not have the time

that is required to make a thorough analysis of each and every procurement. The same is true for the Contracts & Grants Finance Analysis Branch, Office of Financial Management, with respect to its cost and/or price analysis work.

As a result of the division of responsibilities, the Research Institutes and Divisions have recognized the need for some business administration and contracting expertize during the pre-award phases of procurement. They have assigned those activities normally carried out or overseen by a contracting officer acting in close concert with Program, to their administrative personnel. In some cases, those I/D's with the larger contracting programs have contract specialists, at grade levels higher than the average grade in RCB, to perform or assist scientific program managers in carrying out these activities. It is to the I/D's credit that they have stepped in and filled this vacuum. It must be recognized that an attempt by NIH top management to pull the contract specialists from the larger programs into a central staff would likely encounter serious obstacles, and might be impractical since the good procurement team approach that, in most cases, exists between the scientific/technical program officials and the Program contract specialists would be extremely difficult to re-establish.

The team noted that a few of the contract specialist in the Institutes do not have the formal training and years of experience in government contracting that is possessed by the contracting personnel in RCB.

However, this is compensated for in some degree by their knowledge of program and by the good working relationship and mutual respect existing between the scientific/technical program personnel and the Program contracting-type personnel.

The strengths and weaknesses found in the contracting activities of the I/Ds will be discussed in other sections of this report. Perhaps the most disturbing problem that can be attributed to having "on-the-job-trained" contracting personnel in some of the Institutes relates to technical negotiations. The technical discussions which are sometimes held before the award of a new contract or a renewal, by the program scientist, or other program specialist with the scientific/technical personnel of the prospective contractor, often result in modifications of the workscope and corresponding adjustments of the costs originally proposed. It appears that only those I/D contract specialists with experience in R&D contracting in other agencies, and a few management-oriented program scientists recognize that these discussions are one of the most important parts of the negotiation process and should be conducted by the program officer, the contracting officer and any additional advisers that the contracting officer might need, acting as a team.

Other contracting and program personnel in the I/Ds believe that the contracting officer should negotiate fees, overhead rates and firm up the overall cost, but do not agree that the Contracting Officer has a

legitimate and responsible role to play in technical negotiations. They consider such technical discussions as properly "scientist-to-scientist" matters even though the work to be performed is the controlling element in determining the overall cost and other business aspects of a contract.

Although we have pointed up (both here and in later sections of the report), the major problems resulting from the division of research contracting responsibilities, the team is not critical of the contracting officer who, for many years, from a powerless position at a low level in the organizational hierarchy, has tried repeatedly to have the responsibility and authority for research contracting brought together in one office. While he did not succeed, he has managed to maintain an operating service which handles a large and ever-increasing workload in a timely manner, to protect the government's interest and to keep the respect of his staff and of the I/D's serviced.

Taking a detached look at the history of the present organizational structure and the recent rapid growth of research contracting at NIH, we recognize that, in the beginning, it was both logical and efficient to establish a small contracting operation in the central supply organization to process the few contracts generated by the program offices. Later, when the tempo started to accelerate, although the overwhelming

preponderance of the contracts were generated by one Institute, other offices needed to be serviced. It was, therefore, administratively sound to enlarge the staff of the service operation, but keep it in central supply.

The use of the contract as an instrument by other I/Ds for accomplishing research started in 1958 and increased gradually for a few years. Then, in FY 1967, by which time the present division of contracting responsibilities was well entrenched, the number of directed research programs carried out solely or primarily by means of the contract instrument and the number of individual research projects carried out by contracts rose sharply and continued to increase at a rapid rate. With the increasing impetus toward goal-oriented programs in the health and medical field, and with a number of NIH's directed research programs entering or on the verge of entering the developmental stage, where the biomedical scientists and the physical scientists must collaborate and focus their skills and know-how on the development, design and production of new materials, processes, and hardware, the use of the contract instrument is expected to increase at an even faster rate in the future.*

What? The team and, undoubtedly, NIH top management recognize that the existing negotiated contracting organization has a number of inadequacies and weaknesses that would have to be corrected even if NIH's contracting

*Hereafter, a directed research program which is accomplished solely, or primarily by means of contracts, is called a directed research contract program.

activities had reached a plateau and would continue at the present level, and that the existing contracting organization is totally inadequate and unsuitable for, and cannot possibly meet the needs of the research and developmental contract programs projected for the future.

C. Organizational Alternatives

1. Requirements

Before considering possible alternatives to the present organization of negotiated contracting activities at the NIH, it is necessary to outline the basic requirements that must be met by any new organizational structure proposed. Specifically, a new organization must meet the following requirements:

a. Be designed to meet the current needs of all operating program components of the NIH, including the BEMT, the NLM, and the Research Institutes and Divisions.

b. Be so structured that it can meet the imminent and foreseeable future needs of the NIH with relatively minor adjustments in the basic structure. In particular, consideration must be given to the fact that an ever-increasing number of health and medical programs are goal-oriented and directed to the achievement of specific health objectives and that many of NIH's research programs are entering the developmental stage; therefore, the contract as an instrument will become of

ever-greater importance to NIH's overall program and its use will increase at an even more rapid rate in the future than it has over the past few years.

c. Bring responsibility, accountability and authority together at responsible operating levels of the organization.

d. Provide for central direction and coordination in the development of agency contracting policies and procedures, for the central review and evaluation of the contracting activities carried out at the operating level, and for good communications between the central policy and review level and the operating levels of NIH; as well as ~~in~~for strong and innovative leadership.

e. Provide for efficient, effective, and economical operations; eliminate duplication of effort; and utilize present staff effectively. And, very importantly, it must be possible to effect an orderly transition from the present organization to the one proposed.

With respect to staffing, the Ruina Report pointed out that directed research and development contract programs, if properly planned, programmed, and administered, require heavier staffing, both scientific and administrative, than non-directed

research programs of comparable size supported by the grant mechanism.

2. Alternatives Considered

The team considered two plans for organizing NIH's negotiated contracting activities; namely, a centralized contracting operation and a partially decentralized operation. Some consideration was given to a centralized operation with satellites physically located in the major program areas, but this alternative was discarded because of the supervisory, coordination, and control problems presented to the chief of such an organization and the problems the staff of satellite offices always face in trying to serve two masters.

a. Establishing a strong central negotiated contracting operation, located in an office reporting directly to the Associate Director for Administration, has a number of major advantages over the present organizational structure.

(1) The contracting officer authority and the responsibility for all activities requiring the exercise of business administration and contracting expertise would be brought together in one office.

(2) Centralizing the operations under the immediate control and direction of one high-level individual

would facilitate the contract policy development process and insure more uniform application of contracting policies and procedures.

(3) The operating economies and efficiencies normally associated with large centralized operations should result. These include those accruing from the elimination of duplication of effort, the better utilization of personnel, the flexibility provided in managing heavy workloads by the reassignment of available staff, and the establishment of small clerical and service units to handle the important but more routine activities.

(4) By organizing internally to service Program, such an organization would be more responsive to program needs, and its individual staff members would shortly acquire a good understanding and appreciation of the objectives and problems of the respective program areas serviced.

(5) Having all contract specialist personnel assigned to one central organization specializing in negotiated contracting would tend to elevate the professional status of the staff, to set higher skill standards for all members of the professional staff, and

provide a career development ladder with promotion opportunities for staff members as they become more experienced and proficient in the exercise of contracting skills and can assume higher level duties and responsibilities.

The major disadvantages of establishing a strong central contracting operation are:

(1) Pulling all contracting personnel from BEMT, NLM and the Research Institutes and Divisions and reassigning them to a central contracting organization would be extremely disruptive to the entire NIH organization, and no doubt be strongly opposed by NIH's major operating components.

(2) The reassignment and centralization of personnel would disrupt the good working relationships existing between the scientific/technical program personnel and the contracting-type personnel in the program areas, and this procurement team concept would be very difficult to re-establish, particularly at this stage in NIH's history.

(3) Centralizing all NIH contracting personnel and operations would result in an increase in the General and

Administrative Expenses budget for the Office of the Director and in the size of the Management Fund.

(4) Because of the physical separation of the contract specialists from the personnel of the program areas serviced, the needs of the operating program components, particularly those with large and growing directed research contract programs, would not receive the same amount and quality of attention as they do now by the program contract specialist.

b. Establishing a partially decentralized negotiated contracting organization has a number of major advantages and certain disadvantages. Organizing in this manner would entail: (1) the establishment of a strong NIH contracts policy and review office, located immediately under the Associate Director for Administration, with two branches, one a small operating contracts branch to service those NIH operating program components that currently generate a relatively small number of contracts, and the other, a small cost analysis and property management branch, and (2) the delegation of contracting officer authority to, and establishment of operating contract staffs in, those NIH operating components that currently generate a sufficiently large number of contracts to support an efficient and economical contracts operation.

The advantages of organizing in the manner outlined briefly above are:

(1) The establishment of a central NIH policy and review office with a small specialized staff whose members are not involved in daily line operations will insure that proper attention is given to the development, coordination and dissemination of NIH-wide contracting policies and procedures; will provide the staff and the time needed to conduct in-depth analyses of contracting problems and practices and to investigate the applicability to NIH programs of innovative methods and contracting concepts utilized in other agencies and organizations with more sophisticated contracting programs; and, by the systematic review and evaluation of both the centralized and decentralized negotiated contracting offices, will assure that all contracting operations are complying with NIH contracting policies and procedures, are following sound business management and contracting practices, and are operating efficiently and effectively.

(2) Delegating contracting officer authority to, and retaining and/or establishing operating contract

offices in, those operating program components of NIH which have the workload to support an efficient operation, and establishing a central operating contracts office to service the smaller contract programs, will place authority, responsibility, and accountability together at appropriate levels and will eliminate duplication and coordination problems in the NIH organization. At the same time, the operations reviews conducted by the Contract Policy and Review Staff will assure the proper exercise of this authority and the efficient and effective discharge of these responsibilities.

(3) This type of organization should reduce time lags and improve the overall quality of the service. Not only should it provide all program areas with faster service, but also with the business and contracting expertise needed at all steps in the procurement process, from the time the program requirement is determined, until the contract expires or is terminated.

(4) Installation of this type of contracting organization will not only be much less disruptive to the NIH organization than centralizing all negotiated

contracting activities in one place, but will also provide a structure that will facilitate the establishment of additional operating contract offices in the Research Institutes at such time as their respective contract workloads warrant.

(5) The placing of those cost and/or price analysis functions and those contract property management functions that relate solely to negotiated contracting in a branch, reporting to the central Contract Policy and Review Director should make each more responsive to the needs of the NIH Contracting Officers, eliminate duplication, and result in a more timely product, specifically designed to meet contracting requirements.

The major disadvantages of a partially decentralized negotiated contracting organization are:

(1) It is more difficult to insure the uniform interpretation and application of contracting policies and procedures, and to provide direction and guidance when operations are decentralized than it is when all operations are centralized in one location and under the immediate control and direction of one individual.

(2) Decentralized operations do not provide as much flexibility as centralized operations do in scheduling and controlling workloads, in shifting personnel to meet peak loads, or in segregating work by relative difficulty and in utilizing those staff members with the higher skills and higher grades to handle the more important and complex procurement actions.

(3) Those Research Institutes which because of the size and nature of their contracting activities should be delegated contracting officer authority at this time will need more personnel and, in some cases, personnel with higher skills and more formal experience in negotiated contracting. However, these needs can be met by the reassignment of contracting personnel from RCB.

(4) Finally and of lesser importance, centralization rather than decentralization of operations appears to be the popular trend in Government, particularly with the increased use of computers.

3. Alternate Plan Selected

The plan of organization which provides for a strong, central contracts policy and review staff office and for partially

decentralized contracting operations, in the opinion of the team, will best meet NIH's present and future program needs. Its strong points are enumerated below.

First, this organizational structure makes adequate provision for the efficient and timely accomplishment of NIH's current contracting workload and can be expanded in an orderly manner, with but minor changes in the basic structure, to accommodate the contracting workload forecast for the future. This is of utmost importance, particularly at this stage in NIH's history, when the use of the contract as an instrument in achieving NIH's health and medical program goals is growing rapidly, when more and more of NIH's research programs are directed and goal-oriented, and when a number of NIH's directed research programs are entering the developmental phase.

Second, NIH's negotiated contracting activities some time ago reached the point where they can no longer be considered "station-support" activities, but must be recognized as one of the primary management tools for accomplishing NIH's program objectives and must be elevated in status. This organizational plan does this by establishing a Contracts Policy and Review Office under the Associate Director for Administration, in the Office of the Director - the same organizational level as the Office of Personnel Management, the Office of Financial Management, the Office of Management Policy and Review, and the Office of Administrative Services.

Third, this method of organizing places necessary and appropriate emphasis on the development, coordination, and communication to all operating components of NIH of agency contracting policies, implementing procedures, and new or improved contracting methods and techniques. And, by assigning to the one staff the functions of central policy planning and development and the functions of reviewing and evaluating all agency contract operations, centralized and decentralized, it provides necessary central direction and control over contracting operations. It also insures that agency policies and procedures are not planned and developed by a detached staff or by line operators whose work pressures always mitigate against giving such staff work the time and emphasis needed, but by a staff whose combination of duties will give them time for the deliberation required and will provide them with an understanding and appreciation of the realities being experienced at the operating level.

Fourth, the delegation of contracting authority and the decentralization of contracting operations to lower responsible levels in the NIH organization, as provided in this plan, is in accord with one of the basic principles of organization and management, i.e., authority commensurate with responsibility should be delegated and located as close as possible to the point where operations take place and decisions must be made. Since the most serious problems of coordination and

communication occur during the processing of individual procurements when operating responsibilities are scattered in two or three organizational units each under separate management control, both coordination and communication will be strengthened. Moreover, tighter administration will result by bring contracting authority and contracting operations together with program management and decision-making under the direction and control of the bureau, research institute or division director who has personal responsibility and accountability for directing the execution of the program and the allocation and expenditure of the funds appropriated to the respective bureau, institute or division.

RECOMMENDATIONS

1. THAT NIH'S NEGOTIATED CONTRACTING ACTIVITIES BE REORGANIZED AND FUNCTIONS ASSIGNED FOLLOWING A STAFF AND LINE CONCEPT.

2. THAT A STRONG CENTRAL CONTRACTS POLICY AND REVIEW STAFF OFFICE BE ESTABLISHED AT THE TOP MANAGEMENT LEVEL OF NIH.

3. THAT OPERATING CONTRACT OFFICES BE ESTABLISHED AND/OR RETAINED IN THOSE MAJOR OPERATING NIH COMPONENTS THAT GENERATE A SUFFICIENT VOLUME OF CONTRACTING WORK TO SUPPORT AN EFFICIENT OPERATION.

4. THAT A CENTRAL OPERATING CONTRACT OFFICE BE ESTABLISHED TO PROVIDE CONTRACTING SERVICES TO NIH'S OTHER MAJOR OPERATING COMPONENTS THAT DO NOT GENERATE A SUFFICIENT NUMBER OF CONTRACTS TO JUSTIFY THEIR OWN OPERATING CONTRACT OFFICES.

D. Proposed Organization of NIH Negotiated Contracting Activities

1. Central Staff Office

An Office of Contract Policy and Review should be established under the Associate Director for Administration in the Office of the Director, NIH. This Office should be headed by a Director with status and a grade-level comparable to the other Office Directors in Administration, and should consist of a small policy planning and review staff and two operating service branches. The importance of giving this Office and its Director status and strong top management support cannot be overemphasized. For, although the importance and responsible nature of the functions proposed for this Office and its Director, in our opinion, warrant a high location in the organizational hierarchy and a supergrade or at least a GS-15 for the position of Director, these manifestations of status and evidence of strong support by NIH's top management must exist if this reorganization of NIH negotiated contracting activities is to succeed. (Hereafter, the Director of this Office is referred to as the CPR Director.)

The CPR Director should devote the preponderant portion of his time in planning and supervising the activities of the central policy and review staff and in establishing and maintaining effective coordination and channels of communication with other

offices in the Office of the Director, NIH, such as the Office of the Director of Collaborative Research and the Office of Financial Management; with the NIH bureaus, institutes and divisions; and with the Office of the General Counsel and the Office of General Services in the Office of the Secretary; and a lesser portion, to directing and coordinating the activities of the two operating branches. Since we would expect the CPR Director to serve as both the Director of the Office and of the small policy and review staff, the contract policy and review functions proposed for both are described briefly below.

a. Functions

(1) Plans, develops, coordinates the development of, and recommends NIH-wide negotiated contracting policies, implementing procedures, practices and techniques that will assure the sound administration and management of contracting operations and will meet the needs and special requirements of NIH programs.

(2) Provides central direction and technical assistance to NIH operating bureaus, institutes and divisions on problems relating to individual procurements and on the interpretation and application of Government contracting rulings and regulations and of Department policies and directives governing or affecting NIH's negotiated contracting operations.

It is proposed that the policy formulation function and that studies and proposals on new and/or improved contracting concepts and methods for funding contracts, especially those related to R&D, would be performed primarily by the central staff. In addition to day-to-day telephone and personal contacts and the requesting of written comments on proposed NIH and Department issuances, it is proposed that regularly scheduled and ad hoc meetings, called and chaired by the CPR Director, be used in obtaining program, administrative and technical (contracting) participation in the policy development process and in effecting coordination and communication throughout the organization.

First, to insure good coordination and communication, at the technical operating level, we propose that the CPR Director meet regularly (perhaps once a month) with all contracting officers in charge of a decentralized contract operations unit and his own operating branch chiefs for the purpose of discussing common operating problems and their possible solutions; of identifying and exploring the nature of specific matters requiring an agency policy position or an agency procedure; to consider policies, procedures and new or improved contracting concepts that have been formulated and/or are being investigated

by the central staff, before they are promulgated; and to give guidance on the uniform interpretation and application of revised government contracting regulations, Comptroller General's decisions, court rulings and DHEW policies, and directives on or affecting negotiated contracting activities.

Rather than continue the NIH's Research Contract Policy Advisory Board, we would propose that the CPR Director, at such times as he considers necessary, arrange and chair meetings of those NIH program, administrative and contracting officials having a major interest in or concern with the particular matter at hand; and after all interested parties have made a contribution and a policy position or problem solution has been formulated, that the CPR Director present a fully-coordinated recommendation to the Associate Director for Administration for his approval, or for further consideration at whatever other top management level he considers appropriate. There are several matters which the team noted might profitably be studied and/or reviewed jointly by NIH program, administrative and contracting officials, for example, a review of multi-faceted contracts of large dollar amounts which have been renewed for a period of years; the potential problems resulting from the consolidation of small contracts into one large contract with the same contractor; the need for less cumbersome technical review and proposal

evaluation procedures; and the pros and cons of one-year and incremental funding vs. multi-year funding of research and development contracts, and what, if any, additional statuatory authority NIH might need in this area in the future.

(3) Conducts periodic and special reviews of all centralized (i.e., Negotiated Contract Section, SMB, and Negotiated Contracts Branch, CPR) and decentralized (e.g., Contracts Staff, BEMT, and other institutes with contracting authority) negotiated contracting operations at NIH to assure compliance with procurement policies and regulations; to make sure that sound contracting, pricing and business practices are being followed in all steps of the procurement cycle (i.e., advance procurement planning, source selection and evaluation, solicitation and management of proposals, technical and business evaluation of proposals, contractor selection, contract negotiation, contract administration, including close-out); and to evaluate the efficiency and effectiveness of each respective operation.

Reviews, or establishes and chairs a contract review board to review, prior to execution but following negotiation, all individual contract procurements,

both new and renewal of $500,000 or more and such other contracts of lesser dollar value as requested by a contracting officer, a head of a procuring activity or NIH top management, for soundness of the procurement and compliance with procurement policy.

Periodic evaluations of contracting operations by a higher organizational level staff have a number of values, some of which were pointed out previously when the advantages of decentralizing operations were discussed. It should also be noted that such operational reviews not only assist the director of an agency in carrying out his responsibility for assuring that the contracting officer authority which he has delegated is being legally and properly exercised; but also, serve a similar purpose for the director of the operating bureau or institute who has received and redelegated this authority.

The purpose of a contract review is to make sure that the procurement transaction complies with existing procurement policy. Rather than being concerned primarily with the technical/scientific aspects of the project being contracted for, this review is concerned with the business and administrative aspects of the particular contract, e.g., insuring

reasonable and comparative prices, securing competition, broadening the procurement base, analyzing costs, examining special contract clauses which affect price, clearing deviations from prescribed contract clauses, and other procurement policy matters.

Board reviews of individual procurement actions are desirable; for example, when the procurement is for a large dollar amount, the service being procured is especially complex, or the procurement is the first in what may become a series of procurements from the same contractor. Other cases might involve unusual circumstances, so that the contracting officer or the head of the procuring activity prefers to have the contract reviewed by the most experienced and best qualified personnel available.

On the other hand, board reviews should not be used as a substitute for direct supervision, and too great a reliance on these reviews can weaken a contracting officer's authority and responsibility. Unnecessary board reviews not only extend processing times and add to administrative costs; but if reviews are made of relatively low-dollar procurements, the board will also soon find itself handling so many cases that it cannot devote enough time and attention to the really important ones.

In functional statement (3) above, we proposed that all contract procurements in the amount of $500,000 or over be reviewed by a board. However, as indicated in Exhibit 5, some bureaus, research institutes and divisions have no procurements of this size, while others have a number (some of which are procurements involving multiple awards, e.g., in NHI); therefore, we suggest that no hard and fast rule be established, but that, at least initially, the dollar value of procurements subject to board review vary from program to program. This will insure that a few of the larger procurements processed by each contract operating office are reviewed and will provide the board with an opportunity to regularly evaluate the soundness and effectiveness of each office's performance.

(4) Represents the NIH on all negotiated contracting matters requiring coordination, clearance or approval by the Office of the Secretary, DHEW, or other agencies. This includes such activities as presenting NIH's position on policies and procedures under consideration by the Department, requesting class findings and determinations for authority to negotiate research and development projects, the consolidation and submission of agency reports on negotiated contracting activities, and representing

NIH on contractor protests of award, and disputes and litigations involving NIH contracts.

Works with other offices of NIH on the resolution of any problem which is being experienced by all contract operating offices of NIH. This includes problems of coordination, the improvement of the channels of communication, and the obtaining of resources, administrative service, and other support needed for effective operations, e.g., expediting payments to contractors, speeding up the receipt of final audit reports which are holding up contract close-outs, arranging specialized training sessions to meet the needs of contracting personnel and project officers, improving methods for processing administrative clearances, and establishing better organizational relationships.

(5) Advises top management officials in the bureaus, research institutes and divisions on ways and means for improving their contract operations; and recommends to the Associate Director for Administration the establishment of contract operating units in other bureaus and research institutes when the nature and size of their contracting activities justifies same and advises the ADA on any limitations on contracting

authority that should be provided, on the resources, including staff, needed to establish such units, and on the corresponding staff reassignments and related adjustments that would be required in the central contracts operations branch.

b. Staffing

This office, in our opinion, would require a staff of five contract specialists, including the CPR Director, one secretary and one clerk-typist; or a total of seven (7) employees.

The team recognizes that this is a relatively small number of employees to accomplish the functional responsibilities proposed. However, we believe that this staff should be small in number, otherwise, the members may tend to get involved in day-to-day line operations, thus corroding the responsibilities of, or becoming a crutch to, the heads of the contract operating offices.

Each member of the staff should be highly qualified and experienced in all methods and types of contracting; with a broad knowledge of government procurement policies and practices; with the ability to make sound business judgments, to analyze and advise on unusual and complex procurement

problems, and to evaluate contract operations. Each should also have the ability to evaluate the needs of directed research and development contract programs and to propose new or improved contracting concepts and related administrative devices for meeting such needs.

The CPR Director should not only be highly qualified and experienced in business administration and government contracting, but should also have demonstrated leadership ability; broad experience in planning, coordinating, directing and marshalling the resources necessary to support a large and complex staff-and-line contracting organization; and a good knowledge, understanding and appreciation of the needs, processes and problems involved in contracting for research and development.

2. Contract Property and Cost Analysis Branch

a. General

In other large government contracting offices, the cost and price analysis activities which complement and supplement negotiated contracting operations are located in the same organization and under the management direction and control of the official responsible for contracting. In an NIH management study conducted in 1961, and in Part V of this report, the substantive, coordination and communication

problems inherent in not having specialists in cost and price analysis under the management control of the official responsible for contracting and responsive to negotiated contracting needs at all steps in the procurement process, and the duplication of effort, inefficiencies and conflicts that result are described in some detail.

The advantages of utilizing the contract specialists in making the less difficult cost and price analyses and in utilizing cost and price analysts to make those required on the large and important new procurements and renewals, as well as the line of demarcation that may and, in our opinion, should be drawn between the audit and fiscal accounting responsibilities that are properly those of financial management organizations, and the cost and price analysis responsibilities that are properly those of the negotiated contracting organization are also covered in the sources referenced above. It should also be emphasized here, however, that the proposed separation of the audit and accounting function from the contract cost and price analysis function supports and strengthens the traditional system of checks-and-balances that assists and protects top management in government agencies and in business organizations.

The nature and size (approximately $13 million) of NIH's contract property management activities; the need for centrally controlling all government-furnished and contractor acquired property in order to assure its more effective management and utilization; the reasons the contract property management function needs to be an integral part of contract management, under the immediate supervision of the official responsible for negotiated contracting; and the fact that government procurement regulations make the contracting officer responsible for government property in the possession of contractors are covered in Parts IV and V of this report.

It is recognized that government property management regulations and processes are applicable to contract property and that close coordination and working relationships must exist between the personnel engaged in contract property management, the personnel in the Supply Management Branch who are responsible and accountable for all NIH property, including that in the possession of contractors, and the personnel in the Financial Management Office who are responsible for the capitalization and financial accounting of all NIH property. However, the team strongly believes that NIH-owned property in the possession of contractors can be better utilized, accounted for, and managed if this

activity is made the responsibility of and placed under the immediate control of the official having overall responsibility for contracting. This can be accomplished by the NIH Property Officer designating the proposed Contract Property and Cost Analysis Branch as a property accounting point, in the same manner and subject to the same overall controls as other NIH property accounting points.

3. Contract Operating Offices

a. General

For the reasons outlined previously, the team recommended that the contracting officer authority should be delegated, subject to the administrative limitations imposed by board review of large procurements, and that contract operating offices should be established in those NIH operating components that currently have a sufficiently large negotiated contracting workload to support an efficient and economical operation.

There is no government-wide staffing and workload standard on the number of individual contracts that can be efficiently and effectively managed and administered by one contract specialist. If the preponderance of the procurement workload is comprised of relatively small contracts which normally involve little post-award administration, and technical

b. Functions. The functions proposed for this branch are outlined below:

(1) Provides cost and price analysis services to the Contracts Operations Branch and, as requested, by the decentralized contract operating offices in those bureaus and institutes delegated contracting authority, makes cost and price analyses of their larger and more complex new procurements and renewals. In this connection, serves as a member of the procurement team on such procurements, working with and providing the particular Contract Specialist, Program Manager and Project Officer with varying types of cost and/or price analyses needed at each step in the procurement process; participating, whenever needed, in the negotiations; and assists in the analysis of financial and cost reports received from the contractor during the period of performance.

(2) Acts as the focal point of contact in establishing channels of communication and coordination with the Office of Financial Management (OFM) on such matters as obtaining information on the financial responsibility of a contractor; the adequacy of its accounting, property, purchasing and other management systems, its current salary and wage scales, travel policy, etc.; requesting provisional and final negotiated overhead rates and

audit reports; and assisting in checking into and clearing audit exceptions. Site visits contractor facilities to make management systems reviews and to obtain current salary and wage scales, travel policies, and other cost and price data, and with respect to profit-making contractors not under the cognizant of any other government activity, also obtains data needed for the negotiation of overhead rates, when such data and information on a contractor's current business and management practices are not available through OFM from DHEW and other audit agencies.

(3) Centrally manages and insures the good utilization of all property furnished by the government or acquired by a contractor under NIH contracts, in accordance with the property management and utilization policies and regulations issued by the government and implemented by the NIH Property Officer, SMB. Specifically, establishes and maintains a central control over and accountability for all NIH contract property; advises Contract Specialists in all operating offices on the availability of excess contractor and (by checking with SMB) government property that, by transfer, can be furnished to NIH contractors or prospective contractors and arranges for such redistributions; maintains surveillance on government-owned property in contractor plants to insure compliance with government

accounting, utilization and excess property regulations; conducts periodic and final inventories of property in the possession of individual contractors, reconciles such inventories and accountability records, and assists in making final disposition of such property on expiration or termination of a contract. Works closely with officials of SMB, OAS, and officials of OFM on the management and capitalization of contract property.

(4) Advises and, as requested, assists the Contract Policy and Review Staff in developing policies, procedures and guidance materials pertaining to contract property and cost and price analyses and in conducting reviews of contract operating offices.

c. Organization and Staffing. It is proposed that a Contract Property Section and a Cost Analysis Section be set up in this Branch, with the branch chief reporting to the CPR Director. In the Cost Analysis Section, assignments should be made on a geographical basis, by contractor in order to insure that the Cost Analysts develop and/or retain a specialized knowledge of the organization, business practices, cost and pricing methods, and management systems of NIH contractors and to cut travel costs when site visits are required.

The positions and three (3) employees currently assigned to contract property management in SMB, OAS, should be transferred to

man the Contract Property Section. And, some of the positions and employees currently assigned to cost and price analysis work in the Office of Financial Management should be transferred to man the Cost Analysis Section in this Branch. The exact number would have to be determined by NIH management.

and/or professional service contracts which involve no cost and price analyses or formal negotiations, one contract specialist can handle a very large workload, e.g., in the Negotiated Contracts Section, SMB. However, if all of the procurements are large and complex, one contract specialist can manage and administer only a relatively small number.

As shown in Exhibit 5, the preponderance of NIH contracts currently range from $10,000 to $100,000 in size, with a large number falling below $50,000 and a large number falling around $500,000 to $500,000, but with a very small number above $500,000. And, as noted elsewhere in this report, the team found that those research contracts in the larger dollar amounts were generally the most difficult and complex NIH procurements, both from a pre-award and negotiations standpoint and from the amount and level of work involved in post-award administration.

It is apparent without going into the whys and wherefors that a unit with one contract specialist and one clerk-typist or stenographer is not an efficient or economical operation; yet a unit with two contract specialists and one clerk, while on the borderline, can operate efficiently and

effectively if the procurements are well-scheduled and the workload is distributed over the entire fiscal year.

Because of the varying difficulty level and amount of contract workload generated by the major NIH operating components and the differences in their present contract staffing, the team has not identified which additional NIH major operating components should be delegated contracting authority and authorized to establish a separate contract operating section, but believe that this decision should be made by the Associate Director for Administration. As a general guide, however, the team believes that an NIH component with less than 50 active contracts should not be authorized a separate contract operating office; that one with 50-100 active contracts of all degrees of difficulty and dollar amounts should be authorized to establish a separate office if it can be shown particularly by those in the lower part of this range (i.e., 50-70) that their contract workload will continue to grow heavier during the next year or two; and that those with over 100 active contracts which do not want to be serviced centrally should be delegated contracting officer authority and should be authorized to establish separate contract

operating sections as soon as the Associate Director for Administration finds that such institutes are organized and staffed to exercise such delegated authority and to effectively manage and administer a negotiated contracting operation.

RECOMMENDATIONS

1. THAT THE BEMT AND THE SMB SHOULD BE AUTHORIZED TO RETAIN THEIR RESPECTIVE CONTRACT OPERATING OFFICES AND THEIR DELEGATED CONTRACTING OFFICER AUTHORITY.

2. THAT CONTRACT OPERATING OFFICES SHOULD BE ESTABLISHED IN THOSE RESEARCH INSTITUTES THAT HAVE A SUFFICIENT ACTIVE CONTRACT WORKLOAD TO JUSTIFY SUCH AN OFFICE IN ACCORDANCE WITH THE GENERAL GUIDELINES OUTLINED ABOVE, AND THAT CONTRACTING OFFICER AUTHORITY, WITH AUTHORITY TO REDELEGATE, SHOULD BE DELEGATED BY THE NIH DIRECTOR TO THE DIRECTORS OF SUCH INSTITUTES. THAT ANY ADDITIONAL CONTRACTING PERSONNEL REQUIRED TO SUPPLEMENT THE STAFF OR SKILLS OF SUCH OFFICES SHOULD BE PROVIDED BY REASSIGNING PERSONNEL FROM THE RESEARCH CONTRACTS BRANCH.

3. THAT A CONTRACTS OPERATIONS BRANCH SHOULD BE ESTABLISHED UNDER THE CONTRACT POLICY AND REVIEW OFFICE, ADA, TO CENTRALLY SERVICE THE NATIONAL LIBRARY OF MEDICINE AND THOSE NIH RESEARCH INSTITUTES, DIVISIONS AND OFFICES WHICH CURRENTLY DO NOT HAVE A SUFFICIENT CONTRACT WORKLOAD TO WARRANT A SEPARATE CONTRACTING OFFICE OF THEIR OWN. THAT THE BRANCH CHIEF SHOULD BE DELEGATED CONTRACTING OFFICER

AUTHORITY AND THAT THE POSITIONS AND STAFF OF THE PRESENT RESEARCH CONTRACTS BRANCH, THE CONTRACT SPECIALIST IN NLM, TOGETHER WITH HIS POSITION, AND ANY OTHER CONTRACT SPECIALISTS AND POSITIONS LOCATED IN OTHER INSTITUTES, DIVISIONS, AND OFFICES WHICH WILL BE SERVICED CENTRALLY SHOULD BE TRANSFERRED TO THIS PROPOSED BRANCH.

4. THAT THE SAME POLICY, REVIEW AND OPERATING RELATIONSHIPS, AS PROPOSED IN SUBSECTIONS 1 AND 2 OF THIS SECTION, BE ESTABLISHED BETWEEN EACH CONTRACT OPERATING SECTION AND THE OFFICE OF CONTRACT POLICY AND REVIEW, ADA.

b. Contracts Operations Branch

This Branch, which will service all NIH operating components that currently generate a relatively small number of contracts, should be organized with one or more contracting sections and one administrative section.

The administrative section should be a service and control organization and assigned responsibility for the maintenance of the official contract files, for maintaining controls over all paperwork entering and leaving the branch, for maintaining statistics on and preparing workload and related operating reports, and for providing clerical, typing and related services for the branch.

The contracting sections should be organized and internal work assignments made on the basis of programs to be serviced rather

than by contractor, so that each contract specialist will become very knowledgeable about the objectives, needs and problems of each program he is assigned to service and can be transferred out, without any break in continuity, if the workload of an NIH operating component he services increases to such an extent that establishment of a separate contract operating section is warranted.

Each contract specialist should also establish a procurement team relationship with the Program Director and/or Project Officer of each program serviced and on individual procurements, should participate fully and actively from the time the procurement requirement is determined, through all steps in the procurement cycle until the particular contract expires or is terminated and the contract is closed out. Each contract specialist should call upon the Contract Property and Cost Analysis Branch for cost and price analyses of larger procurements, but should be expected to perform the less difficult cost and price analyses personally.

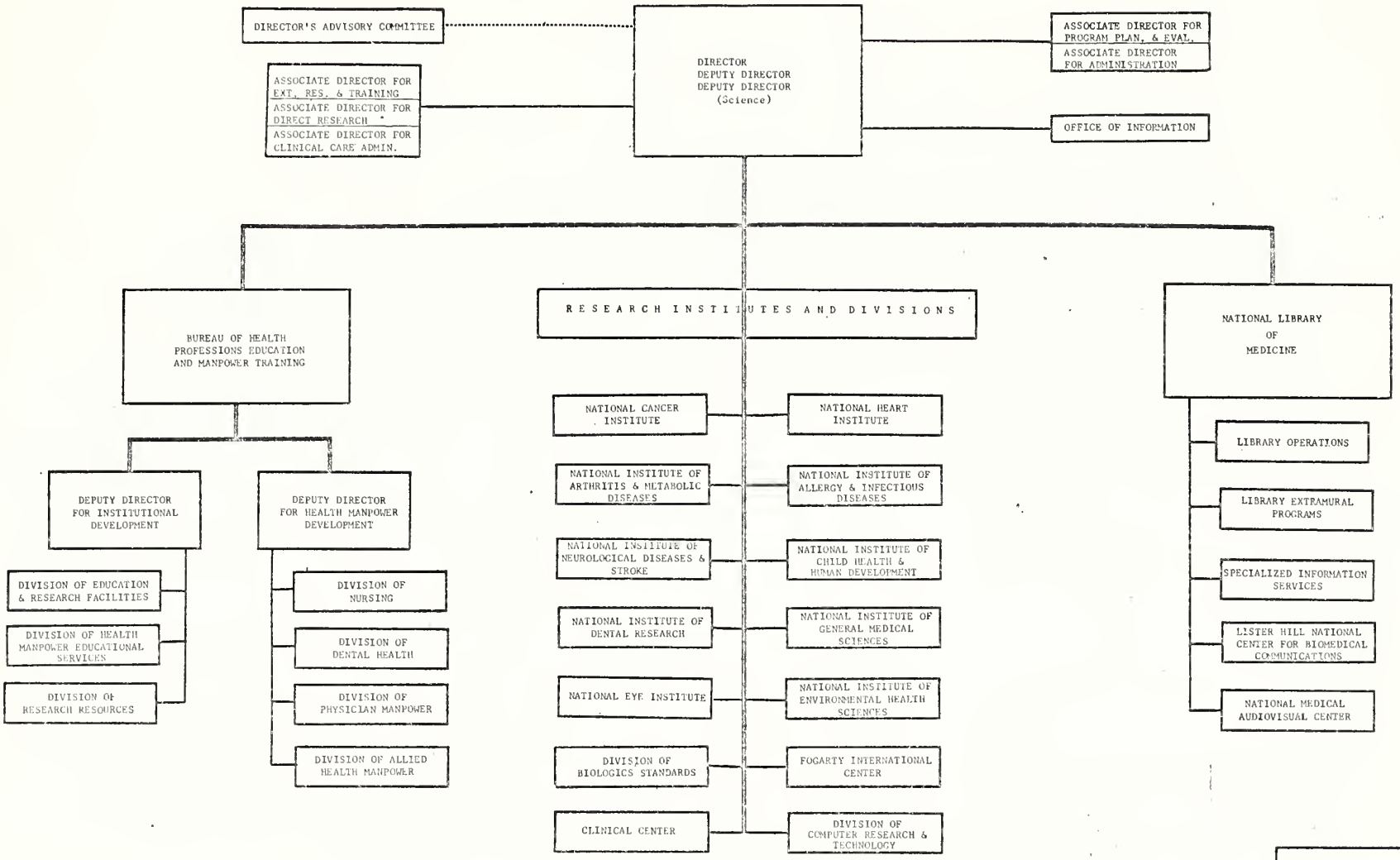
The Branch Chief, although reporting directly to the CPR Director, should operate with the same independence of action and responsibility as the contracting officers in other NIH contract operating offices. Moreover, the members of the OCPR staff must maintain the same "hands-off" relationship with the Contracts Operations

Branch as with other operating offices so as not to undermine the Branch Chief's supervisory responsibility and authority.

c. Other Contract Operating Offices

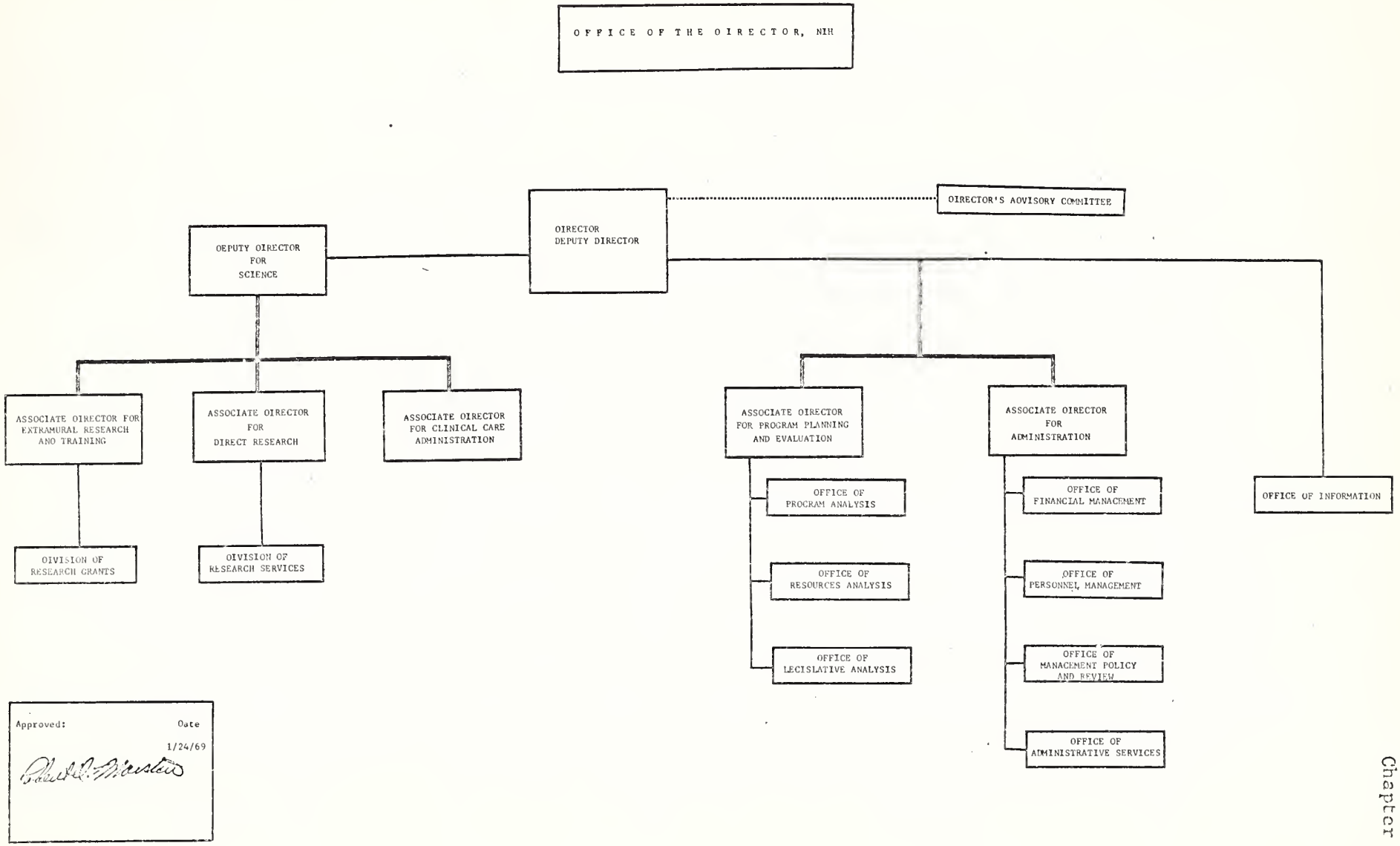
The contract operating offices in BEMT and in the Research Institutes should be organized along similar lines, and should be assigned the same basic functional responsibilities and establish and/or maintain the same relationships with Program officials as the Contracts Operations Branch. Because of the physical dispersion of the programs to be serviced by COB, however, we believe that COB would require more contract specialists than other contract operating offices with a comparable workload.

NATIONAL INSTITUTES OF HEALTH



Approved: Date 1/24/69

EXHIBIT 1
Chapter I



Approved: Date 1/24/69

Robert Q. Marston

Exhibit 2
Chapter I

CHART A

CONTRACTS NEGOTIATED BY BEMT AND SMB
During FY 1967 and FY 1968

FISCAL YEAR	BEMT (a)		SUPPLY MANAGEMENT BRANCH (b)					
			T/P (c)		OTHER		TOTAL	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
1967	214	$8,423,627	-	-	-	-	-	
1968	220	10,949,049	212	$594,718	314	$4,933,355	526	$5,528,073

SOURCE: BHM reports and statistics furnished by SMB.
(a) Bureau of Health Manpower (now BEMT) data are not available prior to FY 1967. Prior to January 1, 1968, BHM was part of and serviced by the Bureau of State Services.
(b) SMB data was not collected by the OS/NIH team for any period prior to FY 1968.
(c) T/P: technical and/or professional service contracts.

CHART B

NEW & RENEWAL CONTRACTS NEGOTIATED BY RCB
Showing number, dollars, and percentage of total
by quarter, during FY 1967 and FY 1968

Quarter	No.	Percent of Total	Dollars	Percent of Total
1st FY 67	94	12.3%	$ 7,951,383	9.6%
FY 68	132	13.7	14,716,141	15.8
2nd FY 67	86	11.3	10,296,853	12.3
FY 68	103	10.7	8,375,684	9.0
3rd FY 67	126	16.5	13,789,921	16.6
FY 68	144	15.0	15,803,891	16.9
4th FY 67	456	59.9	51,224,507	61.5
FY 68	584	60.6	54,487,754	58.3
Total FY 67	762	100	83,262,664	100
Total FY 68	963	100	93,383,470	100

SOURCE: Contract listings published by RCB.
This tabulation shows the distribution of RCB's negotiation workload, by quarter, during FY 1967 and FY 1968. Comparable data was not compiled on BEMT's and SMB's workload distribution although both have heavy 4th quarter workloads.

RCB CONTRACT ACTIONS, FY 1968
Showing Number and Dollar Amount
Obligated Each Quarter by Major Sponsors (1)

Sponsor (2)	1st Qtr. No.	1st Qtr. Amount	2nd Qtr. No.	2nd Qtr. Amount	3rd Qtr. No.	3rd Qtr. Amount	4th Qtr. No.	4th Qtr. Amount	Total--FY 1968 No.	Total--FY 1968 Amount
NCI	98	5,643,835	140	6,758,985	191	14,039,939	224	15,212,661	653	41,655,420
NHI	15	334,056	14	337,271	24	415,341	142	13,163,109	195	14,249,777
NIAID	17	337,094	42	379,109	85	2,113,568	112	6,408,351	256	9,238,122
NINDS	31	5,754,932	13	736,709	29	482,943	35	1,447,264	108	8,421,848
NIAMD	13	180,804	14	306,000	29	928,802	62	3,701,815	118	5,117,421
NLM	4	29,640	8	60,066	12	474,901	35	2,842,097	59	3,406,704
Other I/D's	43	2,335,709	54	680,452	86	2,173,354	149	8,923,822	332	14,113,337
Other PHS	33	158,908	45	594,883	49	811,419	141	5,754,462	268	7,317,712
Total	254	14,772,978	330	9,853,475	505	21,440,267	900	57,453,621	1,989	103,520,341

(1) This tabulation covers total actions processed by RCB in FY 1968, including all new contract and renewal awards and all contract modifications taken to adjust overhead, change the specifications, increase or decrease the contract amount, or extend the period of performance.

(2) The totals for other institutes and divisions include the Division of Regional Medical Programs (total 20 actions, for $2.6 million) which transferred out of NIH to HSMHA on July 1, 1968. The totals for other PHS sponsors include NIMH (total 225 actions for $6.5 million), NCHS, NEHSC and OSG.

Exhibit 4
Chapter I

NEW AND RENEWAL CONTRACTS NEGOTIATED BY RCB, FY 1968
by dollar range and by sponsor

SPONSOR*	$0-9,999			10,000-49,999			50,000-99,000			100,000-499,000			500,000-999,000			1 Million & Over			Total		
	N	R	Tot.	N	R	Tot.	N	R	Tot.	N	R	Tot.	N	R	Tot.	N	R	Tot.	N	R	Tot.
NCI	10	9	19	34	59	93	25	44	69	15	64	79	4	3	7	2	2	4	90	181	271
NHI	1	1	2	32	16	48	38	17	55	10	22	32	4	-	4	-	-	-	85	56	141
NIAID	1	1	2	24	22	46	23	15	38	10	13	23	-	-	-	-	-	-	58	51	109
NIAMD	-	2	2	11	11	22	11	11	22	5	8	13	-	-	-	-	-	-	27	32	59
NINDS	4	1	5	11	5	16	7	5	12	12	8	20	3	-	3	-	-	-	37	19	56
NLM	1	1	2	7	3	10	12	7	19	2	1	3	-	-	-	1	-	1	23	12	35
OTHER I/D's	10	5	15	37	24	61	15	23	38	19	22	41	1	-	1	-	-	-	82	74	156
PHS BUREAUS	20	2	22	50	19	69	26	5	31	12	1	13	-	1	1	-	-	-	108	28	136
TOTAL	47	22	69	206	159	365	157	127	284	85	139	224	12	4	16	3	2	5	510	453	963

SOURCE: Contract listings published by RCB.
* Contracts sponsored by two or more institutes are included in totals for Other I/D's.

CONTRACTS NEGOTIATED BY BEMT, FY 1968
by dollar range

$0-9,000	10,000-49,000	50,000-99,000	100,000-499,000	500,000-999,000	1 Million & Over	Total
30	131	38	20	2	-	220

SOURCE: BHM report on FY 1968 contracts.

Exhibit 5
Chapter 1

NIH RESEARCH CONTRACTS, FY 1958-1968
New and Renewals Negotiated by RCB, OAS (1)
(in millions of dollars)

Fiscal Year	Total NIH (2)		Institutes & Divisions		NIMH & Other PHS Bureaus (3)		NLM		Total Neg. by RCB (4)	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
1958	123	9.7	(118)	($9.6)	(5)	$(.02)			123	$ 9.7
1959	137	14.2	(134)	(14.2)	(3)	(.02)			137	14.2
1960	214	20.1	(184)	(19.8)	(30)	(.35)			214	20.1
1961	264	24.	(219)	(22.9)	(45)	(1.)			264	24.
1962	362	29.2	(287)	(28.)	(75)	(1.7)			362	29.2
1963	411	34.3	(308)	(31.9)	(103)	(2.4)	4	.3	415	34.5
1964	602	41.9	(494)	(39.5)	(108)	(2.3)	12	.6	614	42.5
1965	575	47.8	(407)	(46.)	(68)	(1.8)	10	.6	485	48.4
1966	574	53.	(507)	(50.9)	(67)	(2.)	18	1.1	592	54.1
1967	650	78.	(650)	(78.)	85	3.4	27	1.7	762	83.2
1968	792	82.9	(792)	(82.9)	136	7.	34 5	3.3	963	93.3

SOURCE: Contract listings published by RCB.

(1) Excludes contract modification actions.
(2) FY 1958-FY 1966 totals include I/D's and NIMH.
FY 1967-FY 1968 exclude NIMH which became a PHS bureau in FY 1967.
(3) Totals for FY 1967-FY 1968 include NIMH, NCHS, NEHSC and OGG which were serviced by RCB.
(4) FY 1963-FY 1968, the National Library of Medicine was serviced by RCB. NLM became bureau of NIH in April 1968.

Exhibit 6
Chapter I

NIH NEGOTIATED CONTRACTING PERSONNEL - 1968
Assigned to Organizations Covered in Study
by number, grade, and occupational series

ORGANIZATION		NUMBER, GRADE, SERIES																TOTAL			
		GS-15	GS-14			GS-13		GS-12		GS-11		GS-9		GS-7		GS-5					
		1102	1102	1101	300	1102	300	1102	1101	1102	300	1102	300	1102	300	1102		1102	1101	300	Total
NCI	FT				1	5	1		1	3		1						9	1	2	12
	PT	1		1		1							2		1			2	1	3	6
NHI	FT		2															2			2
	PT				1		1													2	2
NIAID	FT		1			1		1			1							3		1	4
	PT																				-
NIAMD	FT					1						1						2		-	2
	PT																				-
NINDS	FT					1	1											1		1	2
	PT						1				1									2	2
NLM	FT					1												1		-	1
	PT						1													1	1
RCB	FT		1			10		6		7		4		1		1		30		-	30
SMB	FT					1				3								4		-	4
BMMT	FT		1			2		3										6		-	6
Tot.	FT		5	-	1	22	2	10	1	13	1	6	-	1		1		58	1	4	63
Tot.	PT	1	-	1	1	1	3	-	-	-	1	-	2	-	1			2	1	8	11
Tot. by Grade		1	8			28		11		15		8		2		1					
Tot. by Series																		60	2	12	
Total Number: 74																					

SOURCE: Organizations shown.
FT - Full time PT - Individuals spend part-time on contracting, part-time on other duties and responsibilities.
Series: 1101 - General Business Administration
1102 - Contract & Procurement
300 - General Administration

Exhibit 7
Chapter 1

Chapter II. Policies and Procedures

A. Governing Policies and Procedures

Any review of a management operation must of necessity include an analysis of the policies and procedures which govern that operation. Establishment and implementation of governing policies and procedures is a fundamental management function. While it does not necessarily follow that exemplary policies and procedures assure effective operations, it is difficult to conceive of an effective management operation without coherent policies and procedures. In the research contracting context, policies and procedures establish the why and wherefore of research program management operations; they reflect management's philosophy toward the accomplishment of its mission and they provide insight into management's appreciation and understanding of those operations by which the mission is accomplished.

In analyzing policies and procedures with respect to procurement management at NIH, review must encompass a broad gamut of policies ranging from government-wide, through the Department of HEW to NIH generally and down to existing procedures and practices of individual institutes, divisions and organizational units.

1. Government-wide

For the purpose of this report, it is sufficient to briefly note the existence and evolution of certain procurement management

policies and procedures which have been established government-wide, and make observations concerning their adaptation or implementation at NIH.

Pertinent government-wide procurement policies are expressed chiefly in statutes, regulations, particularly the Federal Procurement Regulations (FPR) to which extensive reference is made, issuances of the Executive Office of the President, including but not limited to Bureau of the Budget Circulars, decisions of federal courts and opinions of the Comptroller General.

It is generally conceded that FPR issuances during the late 1950's and early 1960's were meagre, however, the level of government contracting awareness was markedly elevated in the mid-1960's. Characteristic of the change was the generation of a wealth of articulate policy statements from the Executive Office of the President (in particular the statement of Patent Policy of October 1963 and a number of significant BOB circulars) and the revision of the FPR in June 1964. The 1964 FPR revision resulted in a body of regulations governing civilian agency procurement far more comprehensive and meaningful than theretofore existed. Although the FPR makes no pretense at being as all encompassing as ASPR, it represents a broad framework of generally accepted procurement policies sufficiently flexible for independent agency implementation. In any event, the mid-1960's marked a point from

which the steady maturation of civilian agency procurement has evolved. For example, civilian agency acceptance of FPR has become relatively universal and an ever increasing number of federal court decisions have contributed to a continuing refinement of public contract law.

The maturation of federal procurement during the last five years is particularly significant in any attempt to analyze procurement policies and procedures at NIH.

2. DHEW Policies

DHEW procurement policies and procedures are reflected largely in the HEW Procurement Manual as supplemented by a substantial number of Procurement Circulars, staff manual guides, and a number of memoranda, many of which have not been formally incorporated into the Manual. Comment on DHEW procurement policies is reflected only to the extent that they have a bearing on procurement management at NIH.

Use of the HEW Procurement Manual by NIH personnel involved in research contract programs is extremely limited. They encountered difficulty in determining which issuances were currently effective. Objection was commonly raised that the HEW Procurement Manual and supplementary issuances are not comprehensive and that it is often necessary to refer to other DHEW issuances, particularly the HEW General Administration Manual, for guidance in important procurement policy areas.

The most serious criticism voiced quite uniformly at NIH, concerning DHEW's procurement policies and procedures, is that they provide little guidance for agency implementation in the specific area of research contracting.

3. NIH Policies

A discernible body of procurement policy issuances exists at NIH. These include official NIH policies contained in Policy and Procedure Memoranda, generated by the Office of Management Policy and Review, the minutes of a "Research Contracts Policy Advisory Board", and certain brochures such as the "Research Contractors Handbook" and the "Instruction Manual for Control of Government Property by Research Contractors." In addition, there are Research Contracts Section "Staff Guides" which, while not representing official NIH procurement policy, are important to an appreciation of NIH procurement management.

The significance of the RCS Staff Guides may be observed from the fact that a 1964 study entitled "Research Grants and Contracts of the National Institutes of Health," appearing as appendix G, pp. 99-117 to the Report of the Select Committee on Government Research of the House of Representatives, Study Number VII, "Contract Policies and Procedures for Research and Development," cited the Staff Guides, together with the HEW Procurement Manual, as the principal written policies governing contracting at NIH.

a. General Findings

(1) The majority of the NIH issuances predate 1964.

(2) Many of the PPMs in the RCS series owe their existence to the need for reaction to specific situations which had arisen.

(3) Participation by the Research Contracts Branch (RCB) in the formulation of most NIH procurement policies has been limited and there are few policies which were initiated by RCB.

(4) Statutory, or other authority, is rarely cited in NIH issuances. In summary, the team found absence of a continuous system for establishing uniform, NIH-wide administrative policies and procedures. Further, there is an apparent lack of effective management coordination between scientific and administrative personnel. The foregoing seems to reflect a philosophy that because the research at each institute differs and is not subject to NIH direction; the administrative management at each Institute should not be subject to NIH direction.

b. Specific Policies and Procedures

(1) Minutes of RCPAB. The membership of RCPAB has consisted primarily of institute scientists together with the Executive Officer, NIH and a few Institute Executive

Officers. RCB has never been officially represented; however, the Director of the Office of Administrative Services has traditionally served as Executive Secretary to the Board. Minutes of RCPAB have reflected the promulgation of NIH's policies concerning the unallowability of independent research and development costs, "donation" of equipment to non-profit institutions pursuant to P.L. 85-934, and the establishment of certain percentage limitations on fixed fees in CPFF contracts. It appears that legal counsel did participate in the promulgation of several policies. As a matter of record, RCPAB has been virtually inactive during the past six years.

(2) NIH Brochures

(a) Research Contractors Handbook. Issued in 1967 as "a general guide to assist research contractors, who are not familiar with the NIH contracting mechanism, in obtaining an overall picture of the operation," this pamphlet substantially follows a brochure originally generated by NCI. Theoretically, the concept of an authoritative compendium of the fundamentals of research contracting at NIH has great efficacy. Such a handbook can be utilized to disseminate essential information to contractors and, at the same time, in the training and indoctrination of scientific and administrative personnel involved with research contract programs.

The extant "Contractors Handbook" contains a number of significant, albeit correctible, defects which impair its utility. Examples include: (i) misleading inferences concerning examination of contractor financial records, rights in "subject data" and contract termination; (ii) inaccurate information concerning publication of results; and (iii) inadequate information concerning the principles governing the allowability of cost.

Despite these, the handbook represents a step in the direction of improving NIH procurement policies. NCI mails the handbook to its contractors and includes it with all RFPs, however, the team found little use of the handbook elsewhere at NIH.

(b) Property Control Manual. Another example of a step in the direction of improved procurement policies at NIH is the Property Control Manual issued by SMB in June 1968. The manual clearly and comprehensively describes the responsibilities of a contractor with respect to Government property pursuant to the standard "Property" clause. The manual should provide detail in the areas of (i) excess property, (ii) disposition of property, and (iii) relief from

accountability, but these details are inconsequential compared with the generally exemplary character of this brochure.

(c) Billing Instructions. The latest pamphlet version of NIH billing instructions was issued by RCB in July 1968. They perhaps call for the submission of more detail on contractor invoices than is necessary for effective program management. The implementation of the proposed accrued expenditure reporting system may permit the elimination of this detail.

(3) RCS PPM's

It appears that as policy issuances the PPM's do not reflect a systematic and planned approach in implementing procurement policy; instead they reflected a specific problem approach to the generation of policy.

PPM, RCS No. 5, entitled "Criteria and Procedures for Use and Approval of Research Contracts" does provide adequate criteria for the use of research contracts and for distinguishing between contracts and grants.

There is more emphasis placed on the review process than that accorded the process of evaluating contractor proposals. PPM No. 5 further reserves to the institutes the responsibility for establishing policies and procedures for

(i) preparation of requests for proposals (RFPs), (ii) approval of RFPs prior to release, (iii) documentation of contractor selections, and (iv) the review of amendments and extensions to existing research contracts, all of which constitute administrative aspects of directed research program operations and are appropriate subjects for uniform NIH policies and procedures. The requirement, for program concurrence with the document negotiated and prepared by the contracting officer, is interpreted by RCB as infringing upon the authority of the contracting officer by subjecting his function to final review and approval by program institutes.

Several of the RCS PPM's establish general policies without prescribing guidance as to their effectuation. PPM No. 1 furnishes little guidance, in the way of instruction or example, concerning the manner in which the absence of competition will be properly justified. PPM No. 14 lacks detailed instructions with regard to the implementation of the rather complicated policy concerning construction and plant rearrangement. A number of the other PPM's are rather vague in describing the functions and responsibilities of various officials.

Two of the better PPM's from a procurement management standpoint are No. 13, Reimbursement Vouchers for Negotiated

Contracts, and No. 15, Responsibilities of Project Officers in Contract Administration. The former, initiated by FMB, establishes a policy of expediting voucher payments, broadly describes the responsibilities of administrative and program personnel and then prescribes procedures for implementing the policy. PPM No. 15 is the only NIH policy statement which acknowledges the project officer's authority. The policy places in proper perspective the authorities and responsibilities of project officer and contracting officer in administering research contract programs.

The absence of DHEW guidance, mentioned above, is indicated by the existence of PPM's dealing with such subjects as (i) supplemental provisions to the "data" clause, (ii) P. L. 85-934, (iii) government property under research contracts and (iv) construction and plant rearrangement. These areas are not peculiar to NIH; rather they are of general applicability to all constituent agencies and are appropriate subjects for DHEW policy.

(4) Staff Guides

The 22 Staff Guides have represented for nearly a decade the internal policies and procedures of RCB. Although the

Staff Guides are given only limited circulation, they constitute an integral element of NIH's governing procurement policies.

Of the 22 Staff Guides, 16 were issued prior to 1964 and only three are as recent as 1966. Several of the Guides have been rendered obsolete by the enactment of statutes or promulgation of DHEW issuances and their continued retention is of dubious merit. (See Guides 3, 11 and 17.) The team observed that NIH lacks an effective system for review, updating and issuance of staff guides on research contracting.

The Guides reflect a shallowness in approach to the contracting officer's role in program management and his relationship to contractor performance. Contractor performance is treated perfunctorily in Guide No. 5, "Evaluation of Contractor Performance", and Guide No. 18, "Close-out of Cost-Type Contracts" and the contracting officer's involvement in contractor performance is limited to the handling of administrative details. This approach may reflect the realities of current research contracting at NIH, but it contributes little to effective program management.

Staff Guide No. 10, "Non-expendable Equipment Policy and Procedures," is a notable exception to the foregoing observations. Issued in 1961, without the benefit of FPR or DHEW guidance, it reflects a responsible policy toward acquisition of equipment under cost-type contracts which continues to have current validity. This policy appears in an up-dated form in PPM, RCB No. 11.

4. Institute and Division Policies and Procedures

Contracting policies and procedures at individual institutes and divisions were generally limited to those purporting to implement PPM, RCS No. 5 and its mandate that the "internal procedures described" in IV, B be "installed" at all the institutes. Most of them were quite cursory and provided little further guidance as to procedures and practices. A notable exception is NCI, where the "Contract Proposal Review Procedure," commonly referred to as the "Gray Book" covers in detail the review of contract proposals and discusses many additional administrative procedures involved in the pre-award or pre-renewal phase of the procurement cycle. The Gray Book is a lengthy document (currently undergoing revision); however, a careful perusal reveals that its length is largely attributable to a large amount of detail, often repetitive, describing quite minute steps of the process. In dealing with administrative aspects of the contracting process, the book provides some helpful

guidance to program personnel, particularly in the area of documentation. The Gray Book is amended by a 1967 memorandum which describes the revised review procedures of NCI. The revised review procedures provide a system for differentiating between types of negotiated procurements in accordance with their complexity.

In 1967, BHM issued a pamphlet entitled, "Negotiated Contracting Know-How" which briefly covers the negotiated contracting process. It lacks necessary detail particularly in the process of evaluating proposals, which at BHM are primarily single-source proposals.

RECOMMENDATION

THAT NIH DEVELOP COMPREHENSIVE, UNIFORM POLICIES AND PROCEDURES GOVERNING ALL NON-SCIENTIFIC ASPECTS OF RESEARCH CONTRACT OPERATIONS.

B. Specific Policies and Procedures

1. Existing Policies and Procedures:

a. Property Management under Research Contracts

As noted in Part A of this chapter, NIH has a number of written policies concerning acquisition and management of property under research contracts. The importance of effective control of property in research contracts cannot be overemphasized and property management has become an extremely sensitive issue throughout government. The FPR is currently silent in this area, however, it is expected that Part 1-13, dealing with

property, will be added to the FPR in the near future. In anticipation of such issuance, DHEW recently promulgated an interim Procurement Circular 68.3 concerning property. It establishes a rather restrictive policy as to contractor property acquisition and includes a requirement for Findings and Determinations to support such acquisitions. NIH written policy reflects a divergence of approach to contractor acquired policy. The early statement expressed in RCB Staff Guide No. 10 reflects a restrictive attitude and emphasizes that serious consideration should be given before contracting with an organization which cannot or will not furnish, at its own expense, the property and facilities required to perform its contract. Under this policy, contractor acquisition of property would be limited to "cases of special use items... necessary for the direct performance of the contracted and... to be used exclusively for that purpose," and does not extend to office equipment "except in the most urgent or exceptional circumstances."

The policy expressed in PPM, RCS No. 11 manifests a more liberal approach and permits the furnishing of property at the Government's expense "when the contractor normally has no other need for it and cannot reasonably be expected to acquire it for its

own account." The inconsistency between the policies is largely a matter of emphasis, however, the more restrictive policy expressed in the Staff Guide appears more in keeping with DHEW policy and, in implementing HEW Circular 68.3, RCB has seen fit to reiterate its earlier policy statement in an NIH-wide memorandum dated August 13, 1968.

Management of government-owned property under research contracts is alluded to in PPM, RCS No. 11, however, adequate guidance is contained in SMB's Property Control Manual. Among the procedures established by the Manual are the requirements that (i) contractors establish property control systems which are subject to audit by the contracting officer and (ii) annual physical inventories of government-owned property be taken by contractors. Implementation and enforcement of the procedures prescribed by the Property Control Manual is expected to contribute to an improvement in the management of government-owned property at contractor facilities.

b. Transfer of Title to Equipment Pursuant to P. L. 85-934

NIH's written policies and procedures concerning transfer of title to contractor acquired equipment under research contracts with educational and nonprofit institutions are expressed in PPM, RCS No. 10 which implements the policy first enunciated in the Minutes of a 1959 meeting of RCPAB. There is no

governing FPR or DHEW guidance in this area and PL 85-934 reserves to individual agencies the establishment of procedures to implement the transfer of title policy. NIH's policy is expressed in terms of "donation by transfer of title" only after "the equipment has been declared surplus" to contract requirements. The policy forbids transfer of title to equipment before completion of the contract, although the Act is not so restrictive. Since it had been NIH's practice to "donate" virtually all contractor acquired equipment to educational and nonprofit contractors the policy resulted in unnecessarily maintaining NIH accountability for a considerable amount of property destined to be given away.

While there is little evidence of NIH furnishing equipment under new research contracts, of particular interest in this regard is the practice of RCB to transfer property accountability from one contract to successor contracts with the same organization. This has the effect of converting what may have been "contractor acquired" property under the predecessor contract into "government furnished" property. PL 85-934 does not authorize the transfer of title with respect to government-furnished equipment and there may be doubt as to the legality of subsequent donation by transfer of title to a noncommercial

organization with respect to equipment the accountability for which had been transferred to a successor contract.

RECOMMENDATION

THAT NIH REASSESS ITS POLICIES AND PROCEDURES CONCERNING PROPERTY UNDER RESEARCH CONTRACTS, INCLUDING THE TRANSFER OF TITLE POLICY, AND COORDINATE THE DEVELOPMENT OF COMPREHENSIVE PROPERTY MANAGEMENT POLICIES AND PROCEDURES WITH DHEW.

c. Automatic Data Processing (ADP) Policy

DHEW policies and guides for the use, management, and improvement of systems for the processing of data are set forth in Chapter 16 of the DHEW General Administration Manual. Most sections of Chapter 16 predate the latest versions of several highly significant Bureau of the Budget Circulars dealing with the rapidly changing area of ADP.

Personnel internally involved with ADP operations at NIH (DCRT) and BEMT interviewed by the team, uniformly expressed dissatisfaction with the cumbersome departmental review procedures in connection with systems for Agency use set forth in Chapter 16 thru 10 and the absence of clarity and guidance concerning all aspects of ADP management. It was felt that DHEW policy was particularly unclear in the area of acquisition or leasing of ADP systems by research contractors.

d. Patent Policy

DHEW patent policy appears in Chapter 6 of the DHEW General Administration Manual and has been codified as regulations in 45 CFR Title A Parts 6, 7 and 8. Many of the policies set forth in Chapter 6 are quite old.

Approximately ten years ago PHS, at the request of NCI, promulgated two special "patent rights" clauses, the "supplemental" and the "alternate," which were developed for the exclusive use of the Cancer Chemotherapy program. The "supplemental" clause is used to protect confidentiality and proprietary rights in compounds or products delivered by companies to CCNSC for screening. The "alternate" clause, provides exclusive rights to commercial manufacturers for foreground inventions in the course of contract performance subject to license privileges and march-in rights reserved to the government. Neither the "supplemental" clause nor the "alternate" clause, which is ten pages long, have been modified since their issuance.

The area of federal patent policy has become highly sophisticated since the issuance of the President's patent policy statement in October 1963. While DHEW patent policy is consistent with the President's policy in the broadest sense, NIH personnel involved with inventions and discoveries, including the DHEW Patent Counsel who is physically located at NIH, felt that departmental policy was not sufficiently comprehensive.

RECOMMENDATION

THAT DHEW CONSIDER REASSESSING AND, WITH THE ASSISTANCE OF THE CONSTITUENT AGENCIES, DEVELOPING MORE CURRENT AND COMPREHENSIVE POLICIES IN THE AREA OF ADP AND PATENTS.

2. New Policies and Procedures

a. Contractor Financial Reporting

The reporting by contractors of current, complete and accurate accrued cost information is one of the most important tools in effective management of research contract programs. A properly implemented system of contractor financial reporting allows coordination between scientific and administrative personnel and enables the program manager to correlate costs with technical performance, which in turn facilitates the ability to anticipate overruns, changes in direction, or scheduling and attainment of goals thereby providing a basis for meaningful planning and timely decision-making. A cost reporting system would also improve management of government-owned property at contractor plants by establishing a basis for financial control of property. It is encouraging to note that in November 1968, DHEW issued a draft procedure for contractor financial reporting and the establishment of a departmental contractor cost reporting system is now under development.

The team found that the advantages of contractor cost reporting as a management tool was appreciated at those two institutes where the greatest degree of program management sophistication was demonstrated -- NCI and NHI. At both institutes modified systems for reporting current status of funds and cost projections had been implemented. While these techniques fall short of comprehensive contractor cost reporting they constitute a marked improvement over the practice at most other institutes where project officers attempt to monitor their contracts through use of the voucher. The voucher is a singularly unsatisfactory device for program management because it is not (i) current, (ii) complete nor (iii) accurate, nor does it reflect projections of future costs. Since vouchers report only expenditures, they provide a distorted picture of actual accrued costs.

The absence of policies and procedures governing cost reporting has resulted in the voucher being the only mechanism generally available for the measurement of cost. This, in turn, has resulted in the need for requiring vouchers to include elaborate detail of the type normally associated with comprehensive cost reporting. The billing instruction requirement for extensive detail on vouchers has in turn vitiated the objectives of PPM, RCS 13 to expedite voucher payments by FMB.

RECOMMENDATIONS

1. THAT DHEW ESTABLISH POLICIES AND PROCEDURES FOR A COMPREHENSIVE CONTRACTOR FINANCIAL REPORTING SYSTEM, TAKING INTO CONSIDERATION THE REQUIREMENTS OF CONTRACT PROGRAM MANAGEMENT TOGETHER WITH THE NEEDS OF FISCAL MANAGEMENT.

2. THAT NIH STREAMLINE ITS BILLING INSTRUCTIONS.

b. Innovative Types and Methods of Procurement

Effective negotiation contracting necessitates tailoring the procurement to the requirement. FPR 1-3.803 provides for consideration and selection of the appropriate contract type, as described in Subpart 1-3.4, the objective being the negotiation of a type or combination of types of contract "which will promote the best interests of the Government." Adequate consideration needs to be given to refinements beyond the general parameters of procurement techniques prescribed in Part 1-3. Part 1-4 of the FPR has been reserved for "Special Types and Methods of Procurement." The employment of innovative approaches to contracting for the accomplishment of agency mission is demonstrated by the adoption within some civilian agencies of policies and procedures covering such areas as (i) multi-year procurement, (ii) utilization of "operating"

prime contractors, (iii) establishment of national or regional laboratories and (iv) use of "special research agreements" as proposed in the March 1966 Bureau of the Budget study entitled "The Administration of Government Supported Research at Universities." (The Westrate Report)

(1) Special Research Agreements

Support for predominately basic and undirected research programs which might be susceptible to such agreements is handled at NIH through its extramural or grant program. Consideration may be given, however, to differentiating between major targeted programs of directed research at NIH where close government surveillance is required and those research projects which while the research objectives are identified by NIH, are in support of the NIH mission and, accordingly, are supported by use of the contract, but are otherwise similar to grants in that the nature of the research is more basic than applied and the degree of required government direction and surveillance is minimal. A special type of research agreement, other than the traditional contract, may be appropriate for research projects of the latter type. The Westrate Report alludes to the development of "covering" or master agreements with institutions which provide for separately and periodically

spelling out specific tasks or projects. There has for some time existed at NIH a Master Agreement with the National Academy of Sciences which is periodically supplemented by the introduction of specific projects and tasks. In addition, the concept of general institutional support has been given some serious consideration in the grant area at NIH. It is appropriate that consideration of master agreements for the conduct of research at institutions include inputs from the contract management side as well.

(2) Multi-year Procurement Techniques

While requirements are established with a measurable degree of certainty, and their fulfillment may involve substantial initial investment but can be anticipated within a discernible period of time which is longer than twelve months, multi-year procurement techniques afford the potential for (i) stimulating maximum realistic competition by minimizing competitive disadvantage or disinterest and (ii) reducing overall costs by providing the opportunity for substantial cost savings and other advantages through assurance of continuity over measurable periods of time. The effect of such techniques is to strike a desirable, realistic balance between the commitment, by both the government and the contractor, of time, resources and facilities.

In its strictest sense "multi-year procurement" refers to long-term commitments made by an agency made possible by the existence of "no year" appropriations. Such appropriations are not currently available to NIH, but the desirability of their application to certain well defined, targeted programs should not be overlooked.

Even within the more circumscribed context of "annual" appropriations, innovative procurement techniques of a multi-year (in this sense, meaning "more than twelve month") nature are not precluded. Flexibility conducive to tailoring the contract to the requirement may be achieved through (i) realistic phasing of research projects (ii) negotiation of meaningful periods of performance or phases, not necessarily limited to twelve months and (iii) utilization of "option to renew." An outstanding example of employment of such techniques to clearly reflect the intent of the parties was represented by the multi-million dollar contract for the development of a sophisticated Medical Library Analysis and Retrieval System (MEDLAR II) for the National Library of Medicine. The entire estimated cost for all phases of this procurement was established at the outset and funds from current appropriations, were obligated for the first phase only. The team found, however,

that NIH contracting officials regarded the techniques employed in the MEDLAR II contract as exceptional and that similar approaches were not being used because of RCB's interpretation of the budget availability of funds under annual appropriations.

(3) New Types of Contractors

Other civilian agencies have advantageously utilized prime contractors (i) operating government-owned facilities or (ii) conducting major targeted programs in nongovernmental facilities and have established National or Regional laboratories or service centers. Ordinarily special legislation is required for such programs and it is essential that comprehensive and sophisticated management policies and procedures be formulated in advance. Worthwhile consideration may be given to the applicability of such arrangements to certain major NIH programs.

RECOMMENDATION

THAT NIH GIVE HIGH PRIORITY TO EXPLORING INNOVATIVE TYPES AND METHODS OF PROCUREMENT SUITABLE FOR ITS PROGRAMS AND THE DEVELOPMENT OF POLICIES AND PROCEDURES THEREFOR.

c. Other Specific Policy Areas

Brief mention is made herein of certain particular areas in which NIH policies and procedures have not been clearly formulated.

(1) Competition Among Education Institutions

As a matter of policy, NIH does not compete negotiated procurements among educational institutions, notwithstanding the statement in FPR 1-3.101(d) that "negotiated procurement shall be on a competitive basis to the maximum practical extent." RCB officials disclosed that this policy was, in part, based on the exemption from synopsizing afforded by FPR 1-1.1003-2(a)(8).

The team recognizes that the research services of a particular educational institution may be unique, but believes that resort to 41 USC(c)(5) as a basis for negotiating rather than advertising does not in itself justify the absence of competition.*

(2) Policies and Practices Regarding Renewal of Contracts

A substantial number of contracts for directed research at NIH involve renewal of ongoing contracts without competition. Hand in hand with the philosophy justifying the existence of a research contract program at NIH, i.e., that such research is directed or targeted to meet a specific requirement of the agency in accordance with its mission,

* We understand that the Office of General Counsel has recently given an opinion on this subject to the Director, Office of General Services, OASA, DHEW. Until this opinion has been issued as policy, officials at NIH feel justified in continuing the present practice.

there must be a recognition that requirements must be defined with precision and with parameters for performance. It follows that, with the exception of certain long-term contract activities which are more in the nature of continuing services, testing, exploration, many of which could be conducive to a "multi-year" approach, contracts for directed research should not be indefinite in either duration or scope. The practice, so universal throughout NIH (except in the artifical heart program) as to constitute a policy of continuing ongoing research contracts without competition requires careful reassessment.

While it is appreciated that programs of directed research are relatively new to most institutes, there is every indication of continued growth. (Essentially, targeted research programs are the result of NIH's multi-billion dollar investment in broad-based undirected biomedical research, supported through grant programs over the last three decades.) As targeted or directed research assumes greater importance in the NIH mission, it is expected that more sophistication in identifying and describing requirements will be achieved. The time to start is now, before the programs get so large as to become unmanageable.

Greater concentration on definitiveness in targeted research may be expected to achieve a shift in emphasis from the built-in renewability of most of NIH's ongoing contracts.

(3) Contractor Selection Process

As observed in Part A, hereto. NIH has not established sufficiently detailed policies and procedures covering the administrative aspects of the contractor selection process. Uniform policies governing all phases of the preaward cycle, from proposal solicitation through evaluation, recommendation, review and selection, are essential for effective procurement management.

(4) Contract Review

Not to be confused with review of the selection process, contract review entails a systematic review of the operation of the entire procurement cycle, including all aspects of preaward, contract negotiations, award and postaward administration and management. Not only is there no organization for comprehensive contract review at NIH, other than the preaward review of records of negotiation performed by the Chief or Assistant Chief, RCB on contracts exceeding $100,000 but it is management's opinion that present staffing does not permit establishment of a formal review function. However, when time permits, groups have

been set up on an informal basis and have conducted an in-depth review of a block of contract awards. Because of the heavy workload, this type review is not possible during the last quarter of the fiscal year. In addition to establishing an organization within NIH for procurement policy and review, it is essential that policies and procedures be formulated for a formal review of contracting operations.

RECOMMENDATION

THAT NIH FORMULATE POLICIES AND PROCEDURES REGARDING (i) THE REQUIREMENTS FOR ADEQUATE JUSTIFICATION OF THE ABSENCE OF COMPETITION WITH RESPECT TO RESEARCH CONTRACTS WITH EDUCATIONAL INSTITUTIONS, WHEN DHEW ISSUES NEW POLICY, (ii) THE RENEWAL OF RESEARCH CONTRACTS, (iii) THE CONTRACTOR SELECTION PROCESS AND (iv) SYSTEMATIC REVIEW OF CONTRACT OPERATIONS.

C. Contract Clauses

1. General

"Contract," according to FPR 1-1.208, "means establishment of a binding legal relation basically obligating the seller to furnish personal property or nonpersonal services ... and the buyer to pay therefor." With only the rarest exceptions, government contracts are invariably reduced to writing. This written instrument serves as evidence of the agreement between the parties.

Negotiated government contracts usually consist of two sections: (i) the General Provisions, or "boiler-plate" and (ii) the Special Provisions, or "Schedule." Where there is any inconsistency between the General and Special Provisions, the Special Provisions prevail. The review team found some dissatisfaction, among NIH procurement personnel, with the General Provisions prescribed by DHEW for use in negotiated contracts; however, as DHEW is currently giving high priority to the revision of its General Provisions, no recommendations are made by the team with respect to the boiler-plate.

2. Clauses used in Special Provisions of NIH Research Contracts

The Special Provisions of NIH Research Contracts are embodied in a form (Form PHS-4910-3) and the clauses, or "articles", contained therein fall into two distinct categories (i) standard clauses and (ii) additional clauses. The standard clauses used at NIH as set forth on preprinted Form PHS-4910-2, "Contents of Contract", are: (i) Description of Work; (ii) Period of Performance; (iii) Compensation; (iv) Project Officer and (v) Publicity and Publications. It is impractical to attempt to enumerate all the additional clauses which may be made part of the Special Provisions, however, the use or disuse of special articles relating to the following areas will be discussed herein: Key Personnel; approval of certain contract acquired equipment; advance understandings concerning certain categories of allowable costs; option to renew; indirect cost ceilings and defective pricing.

3. Standard Special Provision Clauses

a. Description of Work

The purpose of this article is to set forth the scope of the research to be performed, including the reporting and other delivery requirements, and, where applicable, the "level of effort" to be devoted to the performance of the work. Narrative statements of work represent the product of a coordinated effort by program scientists and contracting personnel but in many cases they appear to be the exclusive product of the program. Reporting requirements, except in contracts sponsored by NHI, invariably follow an open-ended, preprinted format calling for submission of "interim progress reports and a final comprehensive summary report acceptable to the Project Officer in format, quantity and frequency".

The level of effort correlates position classification with estimated man hours and represents an extrapolation from the "direct labor" section of the contractor's cost proposal. No form other than the "level of effort" or "term" form was employed in the CPFF contracts reviewed by the team.

As in the case with reporting requirements, scopes of work tend to be broad rather than firm (a noteworthy exception being contracts for services of a data processing nature wherein the

scopes are described with great specificity). Recognizing the desirability of some degree of flexibility in describing performance and reporting requirements in research contracts, the tendency to employ broad, open-ended statements is inappropriate in those contracts involving quantifiable services or specific performance requirements. Examples of the latter are screening contracts for the Cancer Chemotherapy Program where performance standards are subject to established protocols. The team found no evidence of such protocols being described or incorporated by reference in the statement of work.

Failure to describe in the contract those specific requirements which are mutually understood and agreed to by the contractor and the program scientist suggests that the intention of the parties is not accurately reflected in the instrument. Where specific requirements are already known at the time of negotiation, leaving the statement of work broad to provide program officer flexibility in monitoring is undesirable. Any subsequent misunderstanding may have serious repercussions, not the least of which include the possibility that (i) the research may not be performed as initially contemplated, (ii) the estimated cost may require an increase to cover a direct cost overrun or (iii) the contractor may stop work upon incurrence of 100% of the estimated cost, without any obligation to continue performance.

b. Period of Performance Article

The phrase "shall not extend beyond the estimated completion date of _____", clouds the distinction between the "Completion" and "Term" form of CPFF contract set forth in FPR 1-3.405-5(e). In addition, while routine use of 12-month periods of performance in continuing contracts is understandable, the indiscriminate use of 12-month periods of performance in contracts involving precise requirements is unrealistic. Periods of performance should be tailored to the specific requirement and should realistically reflect the intent and expectations of the parties. Frequent "no cost" time extensions may indicate that there is some lack of consideration given to late starting dates and to identifying the dates when the research is expected to be completed, and when the report is expected to be submitted.

c. Compensation Article

This clause violates a fundamental principle of draftmanship; i.e., terms of instruments do not require repetition. The explanatory matter which comprises the Paragraph A, entitled "Maximum Allowable Cost" is a repetition of the Limitation of Cost and Allowable Cost clauses in the General Provisions. Paragraph C which purports to itemize allowable direct costs

(except for the negotiated mileage, subsistence and per diem rates) is a repetition of the Allowable Cost Clause. Subparagraphs 1 and 2 of Paragraph E, entitled "Prior Authorization of Certain Direct Costs" merely reiterate the General Provisions "Subcontracting" clause in the preponderance of cases.

It should be clearly understood that a "meeting of the minds" of the parties is not guaranteed by repetitive insertion of the same terms throughout different sections of the contract. The best assurance of meeting of the minds and mutual agreement is proper negotiation, ie. that the negotiator fully explains the terms of the contract to the contractor before or during negotiation.

The compensation clause used in CPFF contracts makes fixed-fee "subject to equitable reduction ... if the total number of man-hours of direct labor effort ... is substantially less than stipulated" in the Description of Work article. This provision is inconsistent with the philosophy of CPFF contracting and disregards traditional concepts of remedies for breach of contract.

The Compensation article includes necessary provisions implementing the Negotiated Overhead Rates clause of the General Provisions and the NIH policy regarding unallowability of independent research and development costs.

d. Project Officer

This article violates another principle of draftmanship; i.e., that similar provisions should be covered in one place. The project officer's authority and limitations are described in the Description of Work article. It is awkward to describe the project officer in one clause and designate him in a separate clause of the Special Provisions. If the project officer is known at the time the contract is written, his name should be included in the contract.

4. Additional Special Provisions Clauses

a. Key Personnel and Contractor Acquired Equipment

Clauses designating key contractor personnel and identifying certain approved equipment items are commonly used by BHM in their negotiated contracts but do not appear in contracts negotiated by RCB. Recognizing that the use of these provisions would facilitate program management and contract administration, RCB intimated that they were considering inclusion of such clauses in the future.

b. Advance Understandings

No evidence was found of advance understandings concerned specified categories of allowable cost although this practice is encouraged by FPR 1-15.107. The use by RCB of a preprinted

provision in the "Compensation" article requiring prior authorization of such direct costs as plant rearrangement, restoration and rentals suggests that RCB may not be analyzing the contractor's estimated cost and accounting system at the time of negotiation but may instead be deferring, until such time as the occasion arises, making any determination concerning the allowability of such specific items of cost.

c. Option to Renew

There appeared to be no evidence of employment of an option to renew provision even in cases where performance into a discernible future period was contemplated at the time of negotiation.

d. Overhead Ceilings and Defective Pricing Clause

Overhead ceiling and defective pricing clauses were included, where appropriate, in a manner consistent with FPR 1-3.707 and FPR 1-3.8, respectively.

5. Findings

a. Contract Type

The preponderance of "level of effort", term form cost-type contracts indicates that insufficient consideration is being given to the nature of the requirement being contracted for.

In contracts for ADP and development type services, there has been a failure to utilize the "completion" form where warranted.

b. Data

The "Rights in Data" clause of the General Provisions is quite far-reaching with respect to items "specified to be delivered under the contract," however, the review team found little evidence of specifying items to be delivered in the special conditions to NIH contracts which suggests that adequate consideration may not be given to this important area.

RECOMMENDATIONS

1. THAT NIH GIVE ATTENTION TO IMPROVING COORDINATION BETWEEN CONTRACTING AND SCIENTIFIC PERSONNEL TO INSURE THAT STATEMENTS OF WORK AND RELATED REQUIREMENTS CLEARLY AND ACCURATELY REFLECT THE INTENTION OF THE PARTIES.

2. THAT NIH CONTRACTING OFFICERS GIVE GREATER ATTENTION TO THE USE OF THE COMPLETION TYPE CPFF CONTRACT.

3. THAT NIH CONTRACTING OFFICERS GIVE MORE ATTENTION TO REFLECTING IN THE CONTRACT GREATER SPECIFICITY CONCERNING ALL NON-SCIENTIFIC ASPECTS OF THE PROJECT; INCLUDING, BUT NOT LIMITED TO, ADVANCE UNDERSTANDINGS RELATING TO SPECIFIC CATEGORIES OR ITEMS OF COST, DESIGNATION OF PROJECT OFFICERS AND KEY CONTRACTOR PERSONNEL AND IDENTIFICATION OF APPROVED

SUBCONTRACTS AND SPECIFIED ITEMS OF EQUIPMENT TO BE FURNISHED BY THE GOVERNMENT OR TO BE ACQUIRED BY THE CONTRACTOR.

4. THAT THE STANDARD ARTICLES OF CONTRACT SPECIAL PROVISIONS BE STREAMLINED TO ELIMINATE REDUNDANCIES WHICH MERELY REITERATE, WITHOUT DEVIATION, CLAUSES OF THE GENERAL PROVISIONS.

5. THAT THE INSTITUTES CONSIDER THE DEVELOPMENT OF GUIDELINES FOR REPORTING REQUIREMENTS TAILORED TO PARTICULAR CONTRACT PROGRAMS.

D. Standard Forms

1. The Procurement Request

There exists no standardized format for the procurement request at NIH. Program furnishes RCB with a "request for contract" or 'program memo' which represents the justification for contracting and includes all relevant documentation. Availability of funds is made known to RCB by means of a Requisition form (PHS-402-1). This so-called advance requisition is not an obligation document. It is recorded by FMB as an "open requisition" and has the effect of reserving funds for the official obligation, i.e., the executed contract. This Requisition for Equipment and Supplies form is the same form used for advertized procurements. There is no positive certification, by an authorized financial management officer, as to the availability of funds. The RCB practice is to assume that if the funds aren't available the Accounting Branch, FMB will let them know. The Chief, Accounting Branch, FMB indicated that it would impose no inconvenience to his organization to provide a positive certification of funds. In addition, RCB practice is to construe the requisition as authority to negotiate an amount up to 105% of the amount stated in the requisition.

2. Standards Formats

A number of letters and memoranda have been reduced to standard format in RCB. This is desirable and conducive to efficient operations. A standard type of letter used by the Institutes is a notice of program approval of a research project. In some institutes the approved funding level is also set forth. Such a notice may circumscribe the negotiating position of the Government and is undesirable.

(Use of flexowriter or multilith expedites large mailings.)

Examples:

a. A covering letter transmitting an executed contract contains advice concerning administrative requirements, such as prior approvals, and forwards the property and billing instructions.

b. Approval letters, used by RCB Administrative Section, for required approvals, particularly travel and non-expendable equipment.

Both letters above are generally adequate. One RCB form type letter causes concern. This is the notice to a contractor that no extension is expected. The letter requests submission of required reports (e.g., patents, royalties, etc.) final inventory, completion voucher. This letter is sent 30 days before the expiration date of the contract and the opening sentence states that since the sponsoring program has not advised them of intent to extend, the contract "will terminate" and the stated expiration date. The proper phrase is "will expire." Program is supposed to advise RCB whether contracts are to be renewed or allowed to expire. RCB requests this advice 90 days before expiration and sends a tickler to the institute 60 days before expiration. If no response is received, RCB sends the 30-day notice to the contractor with a copy to the sponsoring institute. If the institute intends to renew the contract but by oversight has failed to advise RCB, it is possible that the 30-day notice will have to be withdrawn.

RECOMMENDATIONS

1. THAT THE DIVISION OF PROCUREMENT AND SUPPLY MANAGEMENT, OASA, OGS, ASSIST NIH IN DEVELOPING A PROCUREMENT ACTION REQUEST FORM. THAT THIS FORM CONTAIN SUFFICIENT STATISTICAL DATA TO PROVIDE INPUT TO THE NIH MANAGEMENT INFORMATION SYSTEM ON CONTRACT ACTIVITY. THAT IT ALSO CONSTITUTE THE COVERING SHEET TO WHICH THE ENTIRE PROGRAM MEMO WILL BE ATTACHED, AND THAT IT PROVIDE, AS A MINIMUM, A POSITIVE CERTIFICATION OF FUND AVAILABILITY BY AN AUTHORIZED FINANCIAL MANAGEMENT OFFICER IN FMB.

2. THAT NIH AND INSTITUTE TOP MANAGEMENT SUPPORT RCB IN ITS REASONABLE REQUESTS FOR RENEWAL INFORMATION, AND IMPRESS UPON THE PROGRAMS THE IMPORTANCE OF IMPROVING COOPERATION AND COMMUNICATIONS WITH RCB.

3. THAT NIH MANAGEMENT ESTABLISH A POLICY REGARDING THE TIMING FOR SENDING PROGRAM APPROVAL NOTICES TO CONTRACTORS, WITH SOME GUIDANCE AS TO CONTENT, INCLUDING A PROHIBITION AGAINST AN EXPLICIT STATEMENT REGARDING APPROVED FUNDING.

Exhibit 1

LISTING OF SMB, RCS STAFF GUIDES

GUIDE NUMBER	DATE LATEST REVISION	TITLE
1.	9/15/59	Entirety vs. Severability
2.	7/29/64	Negotiation Authority
3.	4/30/63	Modification of HEW General Provisions
4.	1/21/65	Determinations and Findings
5.	3/20/61	Evaluation of Contractor Performance
6.	5/2/60	Premium Pay
7.	10/24/61	Make-up and Distribution of Contract Copies
8.	3/22/61	Donation of Contract Equipment Under PL 85-934
9.	2/15/62	Clearance of Contracts Involving Reports Projects
10.	10/6/61	Nonexpendable Equipment Policy and Procedures
11.	10/24/61	Patent Provisions
12.	8/6/62	Fixed Fee
13.	6/1/66	Contract Review Check List
14.	8/6/62	Competition
15.	2/14/62	Extension of Contract Period
16.	2/14/62	Transfer of Property Accountability
17.	4/16/62	Plant Rearrangement
18.	6/10/63	Close-out of Cost-type Contracts
20.	12/15/64	Close-out of Fixed-Price Contracts
21.	12/27/63	Contracts to be Performed in a Foreign Country
22.	11/17/66	Subcontracts for Contract Work
23.	6/9/67	Forms for Negotiated Contracts

There is no current Guide No. 19

Exhibit 2

LISTING OF POLICY AND PROCEDURE MEMORANDA (RCS, SERIES)

PPM, RCS No.	DATE LATEST REVISION	TITLE
1.	3/20/62	Competition for Negotiated Contracts
2.	3/20/62	Contracts Involving Reports Projects
3.	4/9/62	Revised Charter - NIH Research Contracts Policy Advisory Board (RCPAB)
4.	10/19/62	Switching from Grants to Contracts with Profit-Making Organizations
5.	8/5/63	Criteria and Procedures for Use and Approval of Research Contracts
6.	7/24/63	State Department Clearance for Proposed NIH Foreign Research Contracts
7.	8/14/63	Consolidation of NIH Research Activities Supported by Contract and Grants to National Academy of Sciences
8.	5/26/65	Obtaining Data from Contracts Involving ADP
9.	9/21/64	Research Contract Patent Provisions
10.	9/22/64	Donation of Contract Equipment to Nonprofit Institutions
11.	3/10/65	Government Property for Research Contract Use
12.	10/18/66	Statistics on Research Contracts
13.	3/27/67	Reimbursement Vouchers for Negotiated Contracts
14.	5/10/67	Construction and Plant Rearrangement under Research Contracts
15.	6/5/67	Responsibilities of Project Officer in Contract Administration
16.	1/4/68	Restriction of Contractor's Publication Rights
17.	7/1/68	Research Contracts Involving Investigations on Human Subjects
18.	7/1/68	Revision of Contracting Responsibility Within SMB

Chapter III. The "Buy" Decision

A. Program Planning

The team's review of BEMT, NLM, and the Research Institutes, revealed that the planning for activities to be carried out by Contracts, including the setting of priorities and the determination of funding requirements by cognizant top management, is performed as a part of the budgeting and apportionment process.

In addition, some of the institutes use program advisory groups and the Institute Directorate to evaluate and advise on the planning of their contract research programs.

Two of NIH's larger directed research programs - viz, NCI and the Artificial Heart Program of NHI, use formal and structured network planning and programming systems in planning, establishing objectives and sub-objectives, assigning priorities, scheduling, budgeting, and evaluating the total program, and each of its parts. Generally speaking, the surveys, training and demonstration projects, and research projects supported by contracts in BEMT, NLM, and in the Institutes are not sufficiently interrelated to be considered a "directed contract program", but are individual contract projects that are integral parts of or supplementary to the research or other work being performed by organization's in-house staff and, therefore, must be planned, evaluated, and controlled within that context.

RECOMMENDATION

THAT CONSIDERATION BE GIVEN TO THE APPLICATION OF FORMAL AND STRUCTURED NETWORK PLANNING AND PROGRAMMING AS UTILIZED IN NCI AND THE ARTIFICIAL HEART PROGRAM TO OTHER DIRECTED RESEARCH PROGRAMS, FOR EXAMPLE, THE ARTIFICIAL KIDNEY PROGRAM.

B. Procurement Planning

1. General

The procurement function is not an end in itself but rather a means to an end. Its primary objective may be stated as the timely acquisition of essential services or products of desired quality at a reasonable cost and within the framework of legal and administrative authority. It is a generally accepted concept within Government that the achievement of this objective is dependent upon effective procurement planning far in advance of formal procurement action. Procurement planning would include that planning performed by such specialists as technical, scientific, contracting, fiscal, legal, etc. -- that conditions or effects contractual actions with regard to a specific requirement, project or program.

All procurements are amenable to procurement planning. Of course, the nature and extent of planning required will vary with the complexity and dollar value of the proposed procurement. Normally, procurement planning is initiated by the cognizant Technical/Program

office as soon as a decision is made that a specific project will be accomplished by contract. Considering the responsibility of the cognizant contracting activity to manage and conduct the procurement process, and in view of the many business and contractual aspects involved, contracting personnel participate with technical/program and other necessary personnel (i.e., legal, fiscal, property, etc.) in the early planning stages. Through this early involvement, the contracting activity is able to provide necessary guidance and assistance, and thereby set the proper course for the procurement well before the commencement of formal procurement action.

Major factors considered in planning for the procurement may be summarized as follows:

a. Describing the requirement to be procured as clearly, completely and accurately as possible so as to be suitable for soliciting responsive technical and cost proposals from prospective contractors.

b. Determining the proper method of procurement, i.e., formal advertising or negotiation. If applicable, selecting the appropriate statutory authority permitting negotiation and preparing a formal findings and determination.

c. Tentatively selecting the appropriate contract type.

d. Identification of factors which require special consideration (i.e., subcontracting, contractor financing, source evaluation criteria, providing facilities and equipment, patents, reporting requirements, etc.).

e. Development and selection of capable sources for solicitation.

f. Determination and identification of any required clearances or approvals (i.e., ADP, Management Consulting, BOB, etc.).

g. Scheduling lead times and assigning responsibility for accomplishing the necessary phases of the procurement cycle.

Thus, by virtue of advance procurement planning, the procurement team is able to proceed in accomplishing the procurement in a timely, orderly and well coordinated manner.

2. Findings

Procurement planning is accomplished within the institutes on an informal basis through the efforts of the scientific staff assisted by cognizant business-oriented personnel (program contract specialists).

Primary consideration is given to the technical and budgetary aspects of the project, while there is little evidence that commensurate in-depth consideration is given to the business and contractual aspects. With regard to renewal procurements and those with educational institutions (both of which are generally handled

on a noncompetitive basis), there seems to be little or no advance procurement planning once a program decision is made to renew, or to contract with an educational institution.

There is no requirement that the contracting activity participate in the early stages of the procurement cycle. This stems from the fact that the responsibilities associated with the conduct of the procurement process are divided between program (institutes and program divisions) and the contracting officer. Within the Research Institutes, program is responsible for the solicitation and evaluation of proposals, and selection of contractors. In fulfilling these functions, program also conducts negotiations without imput from CGFAB and RCB. RCB reviews the determinations and actions of program for adherence to sound contracting practices, negotiates, and awards the contracts. RCB's responsibilities do not begin until a request to negotiate a contract with a particular contractor is received from program. There is generally a "hands-off" attitude with regard to RCB participating in the early part of the procurement cycle, yet program depends upon RCB to "keep them legal". This division of responsibilities in the procurement program is contrary to traditional Government procurement practices, and is in apparent with FPR 1-3.801(b) and with DHEW policy as expressed in HEWPR 3-1.452.-1:

"(a) Responsibility for the decision of <u>what to buy</u> and <u>when to buy</u> rests with program offices and certain staff

offices in the operating agencies and the Office of the Secretary. Responsibility for determining how to buy, the conduct of the buying process, and execution of the contract rests with the procurement activity, the contracting officer in particular". (Underscoring supplied).

The point in the procurement cycle where the contracting officer's responsibility begins precludes his participation in shaping and directing the course of the contracting process to assure compliance with laws and regulations and to determine the appropriate method of procurement. The contracting officer, therefore, is generally forced to react to the predirected course prescribed by program officials which may prejudice his judgment particularly towards the end of the fiscal year. It noted that approximately 60% of his workload is handled in the fourth quarter.

In those cases where RCB determines that prior procurement actions do not comply with applicable regulations or are not consistent with good procurement practices, contract placement may be seriously delayed while remedial action is taken. This may create embarrassment to NIH in its relationship with contractors. This type of situation would be eliminated or at least greatly minimized if those involved--both program and contracting personnel-- would consider all the technical, business, and contractual aspects during the earliest stages of the procurement cycle.

RECOMMENDATIONS

1. THAT ADVANCE PROCUREMENT PLANNING BE ACCOMPLISHED AND COORDINATED ON ALL PROCUREMENTS, THE NATURE AND EXTENT TO BE DETERMINED BY THE COMPLEXITY AND DOLLAR VALUE OF THE SPECIFIC PROCUREMENT.

2. THAT PROGRAM AND PROCUREMENT PERSONNEL (CONTRACTING OFFICER), ASSISTED BY OTHER NECESSARY PERSONNEL (i.e., LEGAL, FISCAL, PROPERTY, ETC.), PARTICIPATE IN PROCUREMENT PLANNING DURING THE EARLIEST STAGES OF THE PROCUREMENT CYCLE -- SO AS TO SET THE PROPER COURSE OF THE PROCUREMENT PRIOR TO ANY FORMAL ACTION. GREATER EMPHASIS WILL THEREBY BE GIVEN TO THE BUSINESS AND CONTRACTUAL ASPECTS OF THE PROCUREMENT.

Chapter IV. Methods of Procurement and Source Selection

A. Background

1. The steady increase in the NIH contract workload is demonstrated by the following comparative table of contract actions (includes new, renewals and modifications):

Fiscal Year	Number of Actions	% Increase Over Prev. Year
1964	1,016	29%
1965	1,151	13%
1966	1,415	22%
1967	1,564	11%
1968	1,989	28%
1969	2,172*	20%

*NOTE: 1969 is a projection

2. The FPR authorizes two methods of procurement - formal advertising and negotiation. All of the research contracts handled by the Research Contracts Branch are awarded through negotiation. It has been asserted that because of the biomedical research mission of NIH, the availability of scientifically competent sources is often limited, resulting in single-source (noncompetitive) cost reimbursement type procurements. Additionally, the requisite technical capabilities, including personnel expertise in specific fields of biomedical research, very often reside in educational institutions only. This situation results in even more noncompetitive procurements, since within NIH, exception 5 of the negotiation authority (Section 302(c)(5) of the Federal Property and Administrative Services Act of 1949, as amended, 41 USC 252(C)(5) is interpreted by NIH as exempting educational institutions from competition.

3. To assist in obtaining an understanding of the distribution of research contracts within NIH, an overview of new and renewal contracts for FY 1968 and FY 1969 up to October 15, 1968 is found in Exhibit 1 attached.

a. There were 1,025 contracts issued during this period for a total of $112,323,080. Of these, 408 for a total of $43,439,987 were new contracts and 617 for a total of $68,883,093 were renewals.

b. For Educational Institutions

	No.	Dollars (Millions)	Single Source
NEW	154	$14.29	126 (82%)
RENEWALS	297	20.35	
TOTAL	451*	$34.65	

*Of this total, 423 or 93%, were single source.

c. For Nonprofit Concerns

NEW	97	$ 7.38	59 (60%)
RENEWALS	166	18.64	166
TOTAL	263*	$26.02	225 (85%)

*Of this total, 225 or 85% were single source.

d. For Commercial Concerns

NEW	157	$21.75	11 (7%)
RENEWALS	154	29.87	154
TOTAL	311*	$51.62	165 (53%)

*Of this total, 165 or 53% were single source

The summary below shows that in FY 1968 and FY 1969 up to October 15, 1968, 212 new contracts were competed; 196 new contracts were noncompetitive; and 617 renewal contracts were awarded.

	New Competed	New Noncompeted	Renewals	Total
Educa. Inst.	28	126	297	451
Nonprofit	38	59	166	263
Commercial	146	11	154	311
TOTAL	212	196	617	1,025

4. Additional statistical data showing the number and dollars amounts of new and renewal contracts awarded by the 5 largest Institutes and the number and percentage of contracts awarded to educational institutions are presented in the table below:

FY 1968

New and Renewal Contracts
(Showing Participation by Educational Institutions)

Inst.	$(M)	Contracts	New	Renewals	No. Awarded to Ed. Inst.	% Awarded to Educ. Institute
NCI	$34.76	275	91	184	84	31%
NHI	13.93	140	85	55	47	34%
NIAID	8.46	108	58	50	53	50%
NINDS	8.29	55	37	18	31	56%
NIAMD	4.80	59	28	31	29	40%
NLM	2.84	27	16	11	16	60%
TOTAL	$73.08	664	315	349	260	

5. It should be noted that in this report, a renewal is considered to be a single source contract, because it is offered and awarded to the incumbent contractor generally without competition (except for certain contracts of the National Heart Institute). In other words,

renewals are considered to be noncompetitive even though in some instances (with commercial concerns, for example) the original, or basic, requirement was awarded after competition had been solicited.

In spite of the above, renewals are not made routinely. The primary factor in determining whether or not to renew a contract is, whether it will continue to make a vital and needed contribution to the program of which it is a part. This is, necessarily, a program decision. If affirmative, it is then determined whether any adjustments to the project need to be made as to work scope, etc.

Next is the decision as to whether the project should be continued with the same contractor. This involves consideration primarily of what he has demonstrated by his past performance. The reviews and evaluations mentioned above, using day to day contacts, site visits and progress reports provide the basis for this. A progress report summarizing the progress under the existing contract is usually required to be submitted along with the renewal proposal. Technical progress is reviewed in conjunction with cost comparison reports by some institutes in order to simultaneously match technical progress with related costs.

It should be remembered that satisfactory performance alone cannot justify continuing the project with the incumbent contractor. All the factors involved in the decision to continue with the same contractor must be documented. In short, many things must be considered (phase out costs of the old contract, start-up costs of new, loss of momentum on the project if change were made, current contractor's performance, loss of expertise and experience, lack of

convincing evidence that another contractor could do the job better; if the contract involves experiments in animals, the dangers of moving infected animals and the possibility of adverse effect on the tests because of changed environment), and the evidence must be conclusive that it is in the best interests of the Government to continue the project with the same contractor.

6. Small Business Program

Although research requirements are generally not set aside for small business, because of the need to obtain the highest technical competence and scientific expertise available in the biomedical field, small business participation has been considerable, as shown below:

Fiscal Year	Dollars (in Millions)
1967	$22.9
1968	20.1
1969	4.9 (1st Quarter only)

These dollars round out to an average 20% of the total contract dollars and in discussions covering this subject, the team was informed that the Small Business Administration representative is in periodic contract with the Research Contracts Branch and is pleased with the degree of contract participation by small business. The team considers that this amount of participation reflects good management attention to this requirement.

B. Competitive

1. Publicizing Proposed Procurements

Publicizing proposed procurements by synopsizing in CBD is handled by I/D's in a uniform manner consistent with the FPR. It appears,

however, that little effort is made either by the Institutes or RCB to determine the type of synopsis that is best suited to a particular procurement. On new procurement actions, the "RFP Available" synopsis is used almost exclusively by all Institutes but NCI, which frequently uses "Sources Sought". No instance was found where a "subcontracting opportunities" synopsis was used although in one contract reviewed this type of synopsis would have been best suited to the procurement involved.

NHI is the only Institute which as a regular practice publicizes proposed procurements to educational institutions and other organizations which are normally not reached by publicizing in CBD. At the same time as NHI synopsizes in the CBD, it sends letter announcements and/or announcement RFP's to all educational institutions, medical schools, hospitals and professional associations in the United States. These announcements serve two purposes: 1) publicizing the procurement and 2) as a public information tool for stimulating interest in the program and keeping interested groups abreast of status of NHI's research programs.

RCB releases all synopses of the I/Ds, apparently, on the theory that the organization responsible for contract negotiation and execution should be the organization responsible for signing the synopses.

2. Source Files and Source Evaluations

There is no central "Source" or "Bidder's List" maintained by RCB or by BEMT. Only one Institute (NCI) has established and main-

tained a source file containing data on the capabilities, personnel and facilities of sources. One program office (Head Injury - NINDS) has recently done some work in locating and evaluating potential sources for its program. The "Bidders List" maintained by NHI is a roster of organizations having a known interest in or some capability in the program field, e.g., names and addresses of Blood Banks, hospitals, medical schools, professional associations, engineering schools, and commercial and nonprofit concerns which have submitted proposals on prior procurements. It is not a true "source file", since data and evaluations on capabilities of each individual organization are not maintained.

NCI, which uses "Sources Sought" synopses, establishes evaluation criteria and weights for evaluating resumes received. On all new procurements over $25,000 NCI requires site visits be made (normally with non-NCI consultants participating) to evaluate the source unless the responder's facility and capabilities are known to NCI and have been site visited within the past three years.

Other Institutes may use in-house and noninstitution experts (or advisory groups) to evaluate resumes but do not usually assign weights during evaluation or have a policy re site visits.

The number of responders to synopses has increased substantially - increasing costs such as manpower required by the Government to evaluate resumes and/or proposals, and indirectly the costs to the Government for preparation of proposals. Guidance is lacking in the area of determining the number of sources to be solicited.

RECOMMENDATIONS

1. THAT CONTRACTING PERSONNEL (IN INSTITUTES, BEMT, NLM AND RCB) RECEIVE ADDITIONAL TRAINING AND GUIDANCE ON CONSIDERATIONS INVOLVED IN DETERMINING ADVANTAGES AND DISADVANTAGES OF USING VARIOUS TYPES OF SYNOPSES; IN METHODS OF SOLICITING PROPOSALS FROM QUALIFIED ORGANIZATIONS NOT REACHED BY CBD; IN EVALUATION OF RESUMES RECEIVED AS A RESULT OF A "SOURCES SOUGHT" SYNOPSIS, AND IN DOCUMENTATION OF RESULTS; IN METHODS FOR ESTABLISHING AND PROPERLY UTILIZING "SOURCE OR BIDDERS FILE".

2. THAT NIH POLICY OR GUIDANCE BE PROVIDED AS BASIS FOR I/Ds TO JUDGE "REASONABLE AND PRACTICABLE COMPETITION" WITH RESPECT TO INDIVIDUAL PROCUREMENTS.

3. THAT USE OF "SOURCES SOUGHT" AND "SOURCE LISTS" - RATHER THAN PERFUNCTORY USE OF "RFP AVAILABLE" SYNOPSIS BE ENCOURAGED TO ASSURE BROADER BASE OF COMPETITION.

C. Single Source

1. Educational Institutions

A large number of NIH, NLM, and BEMT new procurements are noncompetitive. The principal reason is that NIH holds that there is no requirement to compete or justify the selection of educational institutions. Only NHI as a regular practice has competed educational institutions; others compete them only if an educational institution has submitted a proposal in response to a CBD synopsis.

Before selecting an educational institution, a number of the I/Ds have indicated that they informally considered several possible

sources. They then select the educational institution which in their opinion is best qualified but they do not solicite proposals from other qualified sources nor do they completely document the basis for selection of a particular university.

BEMT's justifications, in a number of cases, spelled out assets of the source selected but did not in fact specify that the contractor selected was in fact "single or sole source". BEMT frequently mentioned other sources considered but sometimes based the selection on recommendations of other PHS organizations relative to "good performance" records of the contractor selected.

There are relatively few new single source contracts with commercial organizations. The RCB Contracting Officer will not accept a request for a single source procurement unless it is fully justified. If he considers the justification inadequate, he requires a testing of the market by synopsizing.

The need for adequate justification has been emphasized in various program staff meetings, meetings of review boards, and in the training course for Project Officers conducted by the Institutes for program personnel.

The basis for many single source procurements is the recognized expertise of the Principal Investigator and his key professional assistants - yet few if any contracts of I/Ds have "key personnel clauses" - an apparent inconsistency. BEMT does use "key personnel clauses" in some of its contracts.

2. Renewals

As previously mentioned, a large percentage of NIH contracts are renewals. A renewal is considered to be a continuation of an on-going project with the same contractor, and is generally handled as a single source procurement.

Many of the contract research projects of I/Ds (e.g., Myocardial Infarction Research, Perinatal, MEDLARS Research Centers, epidemiological projects, etc.) are by nature 3-5 or more year projects or of a type where research results will not be meaningful unless data are collected over a longer time span than one year. Generally, it can be demonstrated that it is in the best interest of the Government to continue with the same contractor unless current performance is unsatisfactory.

Some I/Ds require an evaluation of contractor's performance and program determination by top management on whether each contract should be renewed or reopened for competition annually.

Other I/Ds seem to handle renewals routinely unless the Project Officer considers the performance of the current contract not up to expectation. NCI which has a large number of renewals, requires a program determination on renewal at the same, increased or decreased funding level each year. On its multi-faceted and large contracts, NCI requires that review proecdures be tailor to particular projects. NCI also requires that contracts over $100,000 be evaluated by site visit (including outside experts) at least every three years.

Some I/Ds and NLM have stated that they are considering adopting the practice of requiring certain types of projects to be competed again after contracting a specific number of years with the same contractor, e.g., animal contracts may be renewed for one year but then must be competed. Others may be renewed for 3 years or 5 years, and then the requirement must be competed again.

RECOMMENDATIONS

1. THAT NO RENEWAL SHOULD BE HANDLED IN A ROUTINE MANNER.
2. THAT AN IN DEPTH TECHNICAL AND COST EVALUATION BE MADE OF EACH RENEWAL CONTRACT AND A PROGRAM DETERMINATION MADE AND THE BASIS DOCUMENTED ON WHETHER TO CONTINUE SPECIFIC PROJECTS WITH THE SAME CONTRACTOR, OR TO OPEN TO COMPETITION.

D. Solicitation and Evaluation of Prospective Contractors

1. New Competitive Procurements

a. Governing Policies & Procedures

PPM, RCS No. 5, establishes only broad guidance concerning the conduct of the solicitation, evaluation and review process. In line with governing NIH philosophy, administrative management as well as the scientific aspects of the directed research programs are primarily the responsibility of the I/D's. The responsibility includes the development of contractor selection policies and their implementation. This has resulted in the establishment of a wide range of statements of policies and procedures governing the selection process, varying in thoroughness from the detailed NCI "Gray Book" to the rather brief statements prevalent in the other operating units. Notwithstanding the diversity in the detail and quality of written policy statements, there is an underlying similarity in practice with respect to the selection process.

b. RFP Preparation and Release

(1) Responsibility for Preparation

The most significant aspect of the RFP is the description of the scientific requirement, referred to as the "scope of work". In most institutes, RFP

preparation does not begin until the Program Scientific Director has approved, as part of his overall program and procurement planning function, an individual project to be performed under a contract. After the approval of the solicitation of proposals for a research project has been made at the program director level, an individual project officer is assigned responsibility for development of the "scope". An exception to this general procedure may arise, on occasion, when an individual project officer first develops a statement of work for a project to be submitted to the Scientific Director for approval. Ordinarily, the Program Administrative Officer (in some institutes, referred to as the Program Contract Officer) prepares the administrative or business section of the RFP and, using the "scope" provided by the project officer, is responsible for putting together the RFP.

Two interesting exceptions worthy of note were found in the Cancer and Heart Institutes. Within these institutes, and also in an exceptional procurement involving the acquisition and development of a sophisticated data retrieval system for the National Library of Medicine, preparation of the RFP has been

a coordinated scientific and administrative effort. At NCI, upon approval of a directed research effort for which contract proposals will be solicited, the Program Director (or the Senior Staff of the Program Area) establishes an ad hoc panel which will be responsible for the entire evaluation and selection process, up through recommendation of a prospective contractor. The first responsibility of the ad hoc evaluation panel is the preparation of the RFP. Scientist members of the panel prepare the scope and coordinate their efforts closely with Program Contract Specialists who are responsible for the administrative sections of the RFP. Release of the RFP is coordinated through the NCI Grants and Research Contracts Operations Branch. A similar procedure was followed in NLM, where the entire evaluation panel including RCB and CGFAB representatives for the complicated procurement was involved in RFP preparation. In NHI, RFP preparation is a team effort of the entire Program staff (which staffs are considerable smaller than those in NCI).

The Contracting Officer, RCB, does not participate in RFP preparation for the major I/D's. On occasion, RCB has participated in the formulation of the RFP

for some of the institutes having very small contracting programs.

(2) Uniformity of RFP Formats

There is little uniformity in the formats of RFPs prepared by the several institutes, and in some cases RFP formats differ from procurement to procurement within the same institute. While the necessity for tailor-making the scope and description of technical requirements is recognized, the absence of consistency in setting forth business and administrative requirements is undesirable. Several of the I/D's include Form HEW-333 as part of the RFP, but the treatment of the form is not consistent; in some cases it is included only as a guide, whereas in other instances the prospective contractor is required to utilize the form in proposal preparation. Very few institutes, other than NCI, include the NIH Research Contractors Handbook in the RFP as a guide to proposal preparation. Instructions with respect to preparation and presentation of cost proposals by offerors are often not conducive to submission of estimated cost information in a form and with such precision as would facilitate effective cost analysis. In this area, many RFPs prescribe cost proposal

preparation in accordance with the budget format contained in Form HEW-333, although a number of RFPs from one program within NHI did contain additional instructions regarding specificity of cost information.

(3) Clarity of Scopes

In assessing the clarity with which scopes were described in RFPs, consideration must be given to variances in requirements. In cases where the research or services to be procured were of a developmental nature, involved data processing or testing, scopes tended to be precise and clearly described the parameters of the effort for which proposals were requested. Requirements which were in the nature of feasibility studies tended to be described more broadly, with invitees being requested to furnish proposals describing one or more technical approaches. This approach was common in NHI, particularly the artifical heart program, where the award of multiple contracts under a single RFP is generally contemplated.

PPM - RCS No. 5 states that a research contract is the appropriate vehicle for conducting the performance

of a directed scientific project with a well defined scope requiring the furnishing of a service or a product. It was observed that many of the scopes reviewed appear to lack the specificity implied by this pronouncement. The wide range of costs submitted by proposers for some RFP's seems to justify the belief that more precise and meaningful parameters are needed.

RECOMMENDATIONS

1. THAT NIH ESTABLISH POLICIES AND PROCEDURES AIMED AT ACHIEVING A GREATER UNIFORMITY AND CONSISTENCY IN THE ADMINISTRATIVE ASPECTS OF THE SOLICITATION OF PROPOSALS. SUCH POLICIES MUST, HOWEVER, PERMIT A REASONABLE AMOUNT OF LATITUDE SO THAT THE WIDE VARIETY OF PROJECTS WILL BE PROCESSED IN THE MOST EXPEDIENT MANNER CONSISTENT WITH THE NATURE OF THE PROJECT, ITS SIZE AND COMPLEXITY. USE OF A PANEL FOR PREPARATION OF RFP'S IN THE MORE COMPLEX CASES IS SUGGESTED.

2. THAT I/DS PLACE GREATER EMPHASIS ON COORDINATING SCIENTIFIC AND BUSINESS CONSIDERATIONS IN PREPARATIONS OF RFP SCOPES TO INSURE MAXIMUM SPECIFICITY IN DESCRIBING THE REQUIREMENTS AND THE TECHNICAL PARAMETERS.

3. THAT FINAL RESPONSIBILITY FOR THE CONTENT AND QUALITY OF THE RFP PRIOR TO RELEASE REST WITH THE OFFICIAL HAVING CONTRACTING OFFICER AUTHORITY.

c. Management of the Solicitation, Evaluation Process Before Receipt of Proposals

(1) Resumes

In those few institutes which make a general practice of using the "sources sought" synopsis, the management of the resume and RFP issuances procedure was found to be adequate. These I/Ds recognized the desirability of avoiding a superfluity of proposals, which would be costly and unrewarding both to the government and to those contractors who were not qualified to perform.

(2) Pre-proposal Conferences

I/D management of this area again appeared to be satisfactory. It is recognized that not all procurements require such conferences and that the I/D's decision as to the necessity of such conferences tended to be based on adequate consideration being given to all relevant matters. Where "bidders" conferences were held, their conduct tended to be proper - opportunity was given to all prospective contractors to participate; minutes were kept; and prospective contractors were all kept advised of any additional clarifications or changes in connection with the RFP.

(3) Other Aspects of Pre-proposal Receipt Management

There is no uniformity among I/Ds with respect to policy concerning the treatment of late proposals. However, in practice it was found that individual I/D procedures in this regard were consistent with the philosophy of affording fair treatment to all prospective contractors.

On occasion, instances of submission of revised proposals were revealed and the circumstances surrounding such cases were not made clear in the program documentation. It should be noted that while the discussion of specific changes, refinements and modifications of proposals is an understandable and unavoidable occurrence in the case of single-source or renewal proposals, such practice must be meticulously avoided where new competitive procurements are involved.

d. Evaluation of Proposal Process

(1) The Evaluation Panel

There is considerable diversity in the composition of evaluation boards or panels and in the scope of their responsibilities among the I/Ds at NIH. This again is an area susceptible to uniform NIH policy. Flexibility may be provided for different types of

procurement, e.g., varying complexity, in determining the number of members and the formality of the procedures and documentation; however, there is a need for a uniform and logically consistent philosophy regarding the scope and role of such a panel. As discussed in the section of this report dealing with Policies and Procedures, NIH written policy (PPM 5) does not stress the significance of the evaluation process. This has led to a diversity of I/D practices concerning evaluation panels.

It is the sponsoring program's requirement for which proposals are being solicited and that it is, accordingly, the responsibility of the sponsoring program to be the principal participant in the review and technical evaluation of all proposals. The fact that the sponsoring program director has the ultimate decision-making responsibility in whether to approve the recommendation of the evaluation panel as to the selection of a contractor does not minimize the sponsoring program's obligation to evaluate all proposals. In practice this responsibility appears to be met in most cases. It must also be recognized that some I/Ds have extremely limited staffs for the management of directed research programs and that the

utilization of assistance and advice from personnel outside the program staff is unavoidable.

Most commendable was the practice of NCI, which establishes an ad hoc evaluation panel directly upon approval of a contracting effort by the Program Director. Membership of the panel is preponderantly NIH personnel, most of whom are from NCI. Occasionally outside, nongovernment or other agency, personnel possessing valuable expertise are appointed as members - in which case care is taken to avoid potential conflicts of interest. In addition, an individual with administrative expertise, generally an NCI "Contract Specialist", serves as an advisor to the evaluation board or panel.

A different approach is practiced in other institutes, where the ad hoc panel on occasion consists solely of outside (other agency or nongovernment) "experts" selected from a roster of scientific talent available, who evaluate the proposal submitted and transmit their recommendations to the institute director or the program director. A middle ground is struck in the NHI, where the so-called ad hoc panel is composed of experts from outside the specific program (they

may be NIH intramural, or other agency personnel, or nongovernment consultants - all chosen because of expertise in specific scientific disciplines) to whom proposals are mailed for review. Prior to the formal meeting of the ad hoc panel, the program staff reviews all proposals and then participates in the formal evaluation meeting. The practice of sending proposals to individuals spread throughout the country is of questionable merit and ties in with the observation that greater emphasis be placed on the responsibility of program staff to conduct the evaluation.

(2) Evaluation of Proposals

In all procurements involving services of an ADP nature and in a small number of other cases, weighted, quantified evaluation criteria were established. The use of quantified criteria in most competitive selections is considered desirable. The nature of the "directed research" requirement in most areas for which proposals are solicited is generally not so obscure that it cannot be made amenable to refinement and weighting of the standards for evaluation. The most exemplary practices were noted in connection with all DCRT procurements, the sophisticated

procurement in NLM and several recent selections conducted by NCI. In all these cases, formal, weighted (quantified) evaluation criteria were established by the evaluation panel well before receipt of proposals. In several instances, involving more complicated procurements, written standards for reviewing proposals (including a discussion of all evaluation criteria) were prepared by the panel chairman and distributed to all panel members to insure uniformity and consistency in conducting the evaluation. In the exceptional case of the NLM system, a review committee was established to assist the evaluation panel and to resolve any questions which might arise during the selection process.

On the above cases, proposals were reviewed at NIH and on occasion site visits were conducted. It must be cautioned that use of weighted criteria is not a substitute for thorough analysis of proposals. The basis for evaluating proposals and selecting a contractor needs to be in writing to provide guidance for all involved, and the contracting officer advised of the method to be used in evaluating proposals and his comments invited.

In some of the I/Ds it was impossible to discern the use of any evaluation criteria. Even where evaluation criteria were stated to exist there was no evidence of their being employed with any degree of consistency. The NHI RFP's stated that proposals would be evaluated on the basis of "plan, people, facilities, communication and cost". While these standards are quite broad, they are susceptible to further refinement, elaboration and weighting; however, there was no evidence that these criteria were broken down in any NHI evaluation's reviewed.

The multiple award approach constitutes a drawback to an effective proposal evaluation system when the nature of the requirement will limit awards to only one or two contractors.

RECOMMENDATIONS

1. THAT NHI SHOULD MAKE EVERY EFFORT TO TAILOR ITS EVALUATION PROCESS TO THE SELECTION OF THE BEST QUALIFIED CONTRACTOR OR CONTRACTORS FOR A SPECIFIC REQUIREMENT AND AVOID THE OPEN-ENDEDNESS OF ITS SELECTION PROCESS - I.E., MORE PRECISE DEFINITION BE GIVEN TO ITS RFPS AND TO ITS MANAGEMENT OF THE EVALUATION PROCESS.

2. THAT THE PANEL RESPONSIBLE FOR EVALUATING ALL PROPOSALS AND RECOMMENDING SELECTION OF A CONTRACTOR TO THE PROGRAM DIRECTOR BE COMPOSED

PREDOMINATELY OF SPONSORING PROGRAM STAFF OR, WHERE BECAUSE OF LIMITED STAFFING THIS BECOMES IMPRACTICAL, MAXIMUM USE OF NIH PERSONNEL BE ATTEMPTED BEFORE GOING OUTSIDE; EVALUATION PANELS SHOULD INCLUDE AN ADMINISTRATIVE OR CONTRACT SPECIALIST AS AN ADVISOR, AND, WHERE APPROPRIATE, A COST ANALYST OR FINANCIAL ADVISOR.

3. THAT WHERE A NUMBER OF NONGOVERNMENT EXPERTS ARE TO BE UTILIZED TO ASSIST IN OR ADVISE ON THE EVALUATION OF PROPOSALS, THEIR ADVISORY RESPONSIBILITY BE STRESSED.

4. THAT MAILING OF PROPOSALS FOR EVALUATION TO WIDELY SCATTERED LOCATIONS THROUGHOUT THE U.S. BE KEPT TO A MINIMUM.

5. THAT THE STANDARDIZED NIH POLICY GOVERNING THE EVALUATION PROCESS INCLUDE A REQUIREMENT FOR REFINEMENT AND WEIGHTING OF EVALUATION CRITERIA, WITH GENERAL GUIDANCE AS TO HOW THEY SHOULD BE EMPLOYED.

e. Documentation of the Evaluation and Recommended Selection

The quality and format of documentation differs markedly among the I/Ds. In some instances quite extensive documentation is presented. The Heart Institute prepares one page narratives on all proposals recommended for selection by the *ad hoc* group and the program staff with comprehensive narrative discussions of the rejected proposals. NCI prepares narrative summaries of all proposals

supported by tabulated evaluations, site-visit reports and minutes of evaluation panel discussions.

Where weighted evaluation criteria were employed, the narrative documentation tended to correlate quite logically with the tabulated scorings and facilitated review by scientific and administrative personnel. The narrative documentation of the evaluation in the majority of cases where weighted criteria were absent tended to follow a discernible "all or nothing" pattern. The narrative comments regarding successful proposals tended to be entirely laudatory with few or no derogatory features noted, and no favorable comments would be made in connection with any of the rejected proposals. In many of the I/Ds the narrative discussion of proposals was extremely sketchy. The foregoing observation (re all or nothing) was reinforced by an examination of the selection records of some institutes where a satisfactory (A) and unsatisfactory (X) scoring technique applied to certain broad criteria categories was employed to summarize the evaluation. In such cases, successful proposals received A's across the board, while rejected proposals received A's in no categories and X's in some or all categories.

f. Review of Selected Proposals

The concept of "dual review" is standard policy at NIH. Generally the review by the evaluation panel for the

evaluation of proposals and selection of a contractor is not considered as one of the "reviews" in the dual review policy. PPM, RCS No. 5 speaks in terms of review for "scientific merit" comparable to study sections review of grant applications, together with program director level of review for program relevance. Program relevance, it would appear, is a matter to be determined at the program director level before approving the solicitation of proposals for a specific project. The evaluation panel in the course of selecting a contractor, of necessity makes a comprehensive review of the scientific merit of the project. The significance of this review has apparently not been considered in establishing the requirements to meet the dual review policy.

At NCI the system of "dual review" results in imposing a level of review by a standing contract committee devoted to assessing the competence from a scientific standpoint of the successful proposal and a review by the senior program staff for program relevance and, in fact, for scientific competence as well. The order of review is somewhat inconsistent, since responsibility for the final determination (particularly in cases of disagreement between the program senior staff and the standing contract review committee) for approval rests with the program

director, yet review is first conducted by senior program staff and then by the contract review committee (then resubmitted to the program director). It was considered that the requirement for two levels of review, in addition to the review performed by the evaluation panel, was somewhat duplicative.

RECOMMENDATION

THAT THE RECOMMENDATIONS OF PROPOSAL EVALUATION PANELS FOR NEW CONTRACTS BE SUBJECT TO A SINGLE REVIEW AT THE PROGRAM DIRECTOR LEVEL AND THAT EXCESS REVIEWS BE ELIMINATED. THE PURPOSE OF PROGRAM DIRECTOR LEVEL REVIEW IS TO INSURE VALIDITY OF THE EVALUATION PROCESS AND AS A FINAL DETERMINATION THAT THE SUCCESSFUL PROPOSAL OR PROPOSALS ARE WELL QUALIFIED TO PERFORM AND ARE RESPONSIVE TO THE PROGRAM REQUIREMENT.

2. Renewals

Before attempting to comment upon institute practices in connection with proposals for the renewal (continuation) of ongoing research contracts, one important ground rule must be understood; with the exception of one institute, the continuations of research projects are not usually competed at NIH. Furthermore, many research contracts have been awarded over the years which are considered by the institutes to be continuing projects and many of which may be characterized as being of indefinite duration, notwithstanding annual periods of performance specified therein.

The process of obtaining renewal proposals entails first a program decision early in the current contract period (invariably these are twelve-month periods) that the contract will or is likely to be renewed. When the decision has been made to consider renewal, program discusses with the contractor, often in great depth and detail, the work to be performed and the level of funding for the subsequent contract period.

The thoroughness with which program and contractor explore and agree upon the requirements or the work to be performed during the next renewal period varies with different institutes and even with programs within the same institute. One thing that does not vary, however, is that the discussions always include an understanding as to the contemplated level of funding for the renewal period. Accordingly, renewal proposals tend not to be comprehensive in describing the work to be performed and the technical approach affords little basis for effective cost analysis (one proposal for a $1.8 million continuation consisted of a three page summary of the technical approach and about 28 pages of budget detail). Often the estimated cost information supplied merely summarizes or confirms with renewal proposals what has already been agreed upon between the program and the contractor. In some cases the program files revealed elaborate documentation of the pre-proposal proceedings while in others such documentation was lacking.

If any cost analysis was done, it was done by program before receipt of the proposal, but the files did not give evidence of thorough cost analysis. The I/Ds determination of the funding level of renewals is an integral part of the program planning process. At the time that program plans are being developed all current contracts are examined and evaluated for scientific merit. The decision to extend a contract at the same, increased or decreased level is based on program relevance and program needs. Priority ratings are then assigned based on the relative importance of a project to the achievement of a program goal. Availability of funds is then ascertained based on the most current budget data available. Decisions are then made as to the funding level for renewals based on all the factors cited above.

In some institutes renewal proposals are solicited in writing and the writing, if it may be referred to as an RFP, does not describe a work requirement but rather requests the submission of a proposal geared to a specified budgetary level and as such the RFP is a mere formality. Other institutes do not formally issue RFPs for renewal proposals: they are either requested by telephone or there is an understanding with the institute based on the oral discussions that the renewal proposal will be submitted by a certain date.

The procedure on single-source proposal solicitations is substantially the same. An extreme case is the practice at BEMT where program prepares the written scope and then has the contracting officer send the scope together with Form HEW-333 to the prospective contractor for him to complete.

3. Evaluation and Review of Single-source & Renewal Proposals

With the exception of the NHI, which competes contract renewals annually, the I/Ds do not ordinarily establish *ad hoc* panels for the evaluation of single-source and renewal proposals. The concept of dual reviews assures that both renewals and single-source procurements receive a thorough review and evaluation before the decision is made to request negotiation of a contract. Documentation includes minutes of meetings and other discussions and is considered generally adequate, although there may be a deficiency in the documentation of discussions leading up to submission of a proposal.

RECOMMENDATIONS

1. THAT ALL I/DS ADOPT A MORE UNIFORM AND FORMAL METHOD OF REQUESTING PROPOSALS FOR RENEWALS OF CONTRACTS.
2. THAT DISCUSSIONS BETWEEN PROGRAM REPRESENTATIVES AND CONTRACTOR PERSONNEL CONCERNING WORK SCOPE OR FUNDING LEVELS OF PROPOSED RENEWALS BE THOROUGHLY DOCUMENTED.
3. THAT THE EARLIEST POSSIBLE PARTICIPATION BETWEEN SCIENTIFIC PERSONNEL AND PERSONNEL HAVING CONTRACTING OFFICER AUTHORITY BE ACHIEVED WITH RESPECT TO ALL TYPES OF PROCUREMENT.

EXHIBIT 1

RCS CONTRACT ACTIONS
(As of October 15, 1968)

New Contracts

TOTAL CONTRACTS	COMPETITION	SINGLE SOURCE	$ FY 68	$ FY 69	CUMULATIVE
		EDUCATIONAL INSTITUTIONS			
154	28	126	13,124,109	1,174,125	14,298,234
		NONPROFIT CONCERNS			
97	38	59	6,692,444	693,000	7,385,444
		COMMERCIAL CONCERNS			
157	146	11	19,537,436	2,218,873	21,756,309
408	212	196	39,353,989	4,085,998	43,439,987

Renewals

TOTAL CONTRACTS	$ FY 68	$ FY 69	CUMULATIVE
	EDUCATIONAL INSTITUTIONS		
297	17,276,880	3,081,660	20,358,540
	NONPROFIT CONCERNS		
166	14,523,018	4,122,999	18,646,017
	COMMERCIAL CONCERNS		
154	23,526,854	6,351,682	29,878,536
617	55,326,752	13,556,341	68,883,093

Chapter V - Pricing

A. Selection of Contract Type

1. General

The selection of contract type is generally a matter for negotiation and requires the exercise of judgment. Because the type of contract affects the resulting price to the Government, use of an appropriate type is of primary importance in obtaining fair and reasonable prices. Although no absolute rules can be laid down, there are many factors which should be considered in the use of an appropriate type of contract. Some of these follow:

a. Price Analysis

The degree to which price analysis can provide a realistic pricing standard.

b. The Cost Estimate

In the absence of effective price competition, the cost estimates of the offeror and the Government are the bases for negotiation of any pricing arrangements. As a minimum, the uncertainties involved in performing at the cost estimated, and their possible impact on costs, must be identified and evaluated so that a pricing arrangement can be negotiated which imposes a reasonable degree of cost responsibility upon the contractor.

c. Financial responsibility of the Contractor.

d. Adequacy of the contractor's accounting system.

2. Research

In the majority of research programs, including preliminary explorations and studies, the work to be performed cannot be described precisely. The negotiation of a cost-reimbursement type contract frequently is necessary. However, where the level of contractor effort desired can be identified and agreed upon in advance of performance, negotiation of a firm fixed-price contract should be considered.

3. Development

Where possible, a final commitment to undertake specific product development and test should be avoided until preliminary exploration and studies have indicated a high degree of probability that the development is feasible and the Government generally has determined its minimum requirements for product performance and schedule completion and its desired performance and schedule completion objectives. The precision with which the performance objectives can be defined will largely determine the type of contract employed. In development programs where use of cost and performance incentives are considered desirable and administratively practicable, fixed-price-incentive and cost-plus-incentive-fee contracts should be considered.

4. Types of contracts

The respective contract types vary as to (1) the degree and timing of responsibility assumed by the contractor for the costs of performance, and (2) the amount and type of profit incentive offered the contractor to achieve or exceed specified standards or goals. With regard to degree of cost responsibility, the various types of contracts may be arranged in order of decreasing contractor responsibility for the costs of performance. At one end is the firm-fixed-price contract under which the contractor assumes full responsibility in the form of profits or losses, for all costs under or over the firm-fixed-price contract. At the other end is the cost-plus-a-fixed-fee contract where profit rather than price is fixed and the contractor's cost responsibility is therefore minimal. In between are the various incentive contracts which provide for varying degrees of contractor cost responsibility, depending upon the degree of uncertainty involved in contract performance.

In almost all cases NIH utilizes the cost reimbursement type contract. It is recognized that this type of contract should ordinarlily be used:

(1) when research and development work is procured,

(2) when the scope and nature of the work required cannot be definitely described or its cost accurately estimated,

(3) when there is doubt that the project can be completed successfully, and,

(4) when specifications are incomplete.

5. Findings

a. Although the team generally found no fault with the type of contract selected, it found no evidence that consideration was given to entering into more definitive contract arrangements. The team did however find fault with the stereotyped contract form utilized.

The cost type contract can be drawn in one of two basic forms, Completion or Term.

The Completion form is one which describes the scope of work to be done as a clearly-defined task or job with a definite goal or target expressed and with a specific end-product required. This form of contract normally requires the contractor to complete and deliver the specified end-product (in certain instances, a final report of research accomplishing the goal or target) within the estimated cost if possible; however, in the event the work cannot be completed within the estimated cost, the Government can elect to require more work and effort from the contractor provided it increases the estimated cost. (In a CPFF contract, the fixed fee would not be increased.)

The Term form is one which describes the scope of work to be done in general terms and which obligates the contractor to devote a specified level of effort for a stated period of time

for the conduct of research and development. (In a CPFF contract, the fixed fee is payable at the expiration of the agreed period of time on certification of the contractor that he has exerted the level of effort specified in the contract in performing the work called for, and such performance is considered satisfactory by the Government.)

All of the cost type contracts reviewed provided for a period of performance or level of effort (Term form) which restricts the scope of the contract to procurement of time only. It permits and perhaps encourages the contractor to concentrate on an expenditure of dollars. Even in cases which call for an objective or end-product and a level of effort is provided for in the contract, emphasis is then placed on the level of effort rather than on the program objective or end-product.

b. In reviewing the Renewals (a single contract running for a lengthy term) it was generally noted that work scopes which initially reflected quantitative and qualitative parameters became less definitive in time with no ensuing change in the contract type.

Normally, in the course of a procurement program, (a series of contracts, or a single contract running for a lengthy term), the circumstances which make for a selection of a given type

of contract at the outset will frequently change so as to make a different type or possibly a variation of the existing type more appropriate during later periods. This condition was not observed in our review of the renewals.

RECOMMENDATIONS

1. THAT GREATER CONSIDERATION BE GIVEN TO DEFINING THE SCOPE OF WORK TO BE DONE AS A CLEARLY-DEFINED TASK OR JOB WITH A DEFINITE GOAL OR TARGET NECESSARY FOR CONTRACTING ON A COMPLETION BASIS. ALSO, CONSIDERATION SHOULD BE GIVEN TO PHASING OF WORK TO MEET TARGETED PROGRAM OBJECTIVES OVER A PERIOD OF TIME WITH OPTION PROVISIONS CONTAINED IN THE CONTRACTS.

2. THAT QUANTITATIVE AND QUALITATIVE PARAMETERS BE ESTABLISHED WHEREVER POSSIBLE, ESPECIALLY FOR SERVICES SUCH AS ANIMAL CARE, SCREENING, TESTING, STORAGE, DISTRIBUTION, ETC.

3. THAT CONSIDERATION BE GIVEN TO THE ALMOST ENDLESS VARIATIONS OF THE COST-REIMBURSEMENT CONTRACT. AT ONE EXTREME, IT CAN WITH FEW LIMITATIONS, GUARANTEE THE CONTRACTOR REIMBURSEMENT FOR ALL ALLOWABLE COSTS UP TO THE AMOUNT OF THE CONTRACT. IT MAY SPECIFY A FIXED DOLLAR CEILING OVERHEAD, FIXED HOURLY WAGE RATES, A MANPOWER CEILING, AND/OR CEILING ON OTHER COST ELEMENTS. BETWEEN THESE TWO EXTREMES, COST REIMBURSEMENT CONTRACTS CAN BE SHAPED TO THE NEEDS OF A GREAT VARIETY OF PROCUREMENTS, SUCH AS THOSE REVIEWED.

4. THAT REPETITIVE OR UNDULY PROTRACTED USE OF THE COST REIMBURSEMENT TYPE CONTRACT BE AVOIDED IN THOSE INSTANCES WHERE EXPERIENCE PROVIDES A BASIS FOR FIRMER PRICING.

B. Responsibility for Cost/Price Analysis

1. General

Sound pricing depends upon the exercise of sound judgment by all personnel concerned with the procurement.

2. Responsibility of Contracting Officers

Each contracting officer is responsible for performing or having performed all administrative actions necessary for effective contracting. The contracting officer shall exercise reasonable care, skill, and judgment and shall avail himself of all of the organizational tools (such as the advice of specialists in the fields of contracting, finance, law, contract audit, engineering, traffic management, and cost analysis) necessary to accomplish the purpose as, in his discretion, will best serve the interests of the Government.

To the extent services of specialists are utilized in the negotiation of contracts, the contracting officer must coordinate a team of experts, requesting advice from them, evaluating their counsel, and availing himself of their skills as much as possible.

The contracting officer shall obtain simultaneous coordination of the specialist efforts to the greatest practical extent. He shall not, however, transfer his own responsibilities to them. Thus, the final negotiation of price, including price redetermination and evaluation of cost estimates, remains the responsibility of the contracting officer. (Contained, in part, in FPR 1-3.801(b).)

3. Responsibility of Other Personnel

Personnel determining requests, specifications, adequacy of sources, and like matters have responsibility in such areas equal to that of the contracting officer, for timely, sound and economical procurement.

4. Requirements for Price or Cost Analysis

Some form of price or cost analysis should be made in connection with every negotiated procurement action. The method and degree of analysis, however, is dependent on the facts surrounding the particular procurement and pricing situation. The extent of the cost analysis should be that necessary to assure reasonableness of the pricing result, taking into consideration the amount of the proposed contract and the cost and time needed to accumulate the necessary data for analysis.

The following definitions will help clarify the terms used:

(a) Cost Estimate

The expectation of what it will cost to undertake and complete the work. Under cost-type proposals, the term usually means all proposed costs excluding fee. The procedure is to gather all relevant data on direct labor hours and rates, material quantities and costs, including equipment, purchased parts, and the like.

(b) Cost Analysis

The evaluation of a cost proposal. It involves verification of all cost data and examination of specific elements of cost. Judgments must be made about such questions as the necessity and reasonableness of the proposed costs and the basis on which particular overhead costs were allocated to the contract.

(c) Price Analysis

As distinguished from cost analysis, is the process of examining and evaluating a prospective price using data other than the contractor's cost data. Quoted prices are compared (a) with each other; (b) with prior quotations and prices; (c) with published price lists in such media as catalogs, trade journals and Government publications; and (d) with cost estimate developed independently by Government personnel. Ratios (dollars per square foot, per pound, per test, and so forth) are also used to highlight major deviations from past procurements. Price analysis is basically a comparative process.

Price analysis is therefore meaningful only if the data being compared are in fact comparable. This may not be the case, for example, when prices have been based on different assumptions about technical or performance requirements.

It is recognized that a large percentage of Government procurement dollars is spent on single source or sole source procurement for which no overall standards for comparison exist. It is appropriate in this context to point out again that the preponderance of contracts at NIH are (1) cost type, and (2) single source procurements. In this biomedical research climate where effective competition is apparently limited, cost analysis must of necessity become the essential substitute for competition.

Cost analysis involves the evaluation of specific elements of cost to ascertain whether the amount is reasonable. It should be emphasized that this technique operates more to control and reduce costs than to restrict profit as such. If costs are overestimated or if costs are included for events unlikely to occur, they may contribute to inefficient and uneconomical cost expenditure and performance on the part of an otherwise capable contractor.

5. Findings

Specific areas of the NIH cost analyses function were reviewed. These are discussed below:

(a) Technical Evaluation Function

The analysis by Program (Scientist) of the necessity for various elements upon which the contractors' costs are based (i.e., personnel (labor hours), propriety of labor classifications, consultants, types and quantities of material and equipment, subcontracts, travel, etc.) is an essential part of the technical evaluation function. These scientific judgments, especially in the area of research, are of necessity an integral part of the business evaluation. At NIH the necessity for various cost elements of a contractor's proposal as related to the complexities of the scientific requirement and the technical solutions proposed are reviewed by scientific personnel. This review is performed at the same time technical proposals are evaluated by the respective ad hoc groups. The areas most closely looked at are personnel, (man hours of effort and levels of scientific talent), special equipment and amount of subcontracted work. The documentation resulting from the review supports recommendations of the source(s) selected for award of a contract. It contains data which specifies why the recommended proposals were deemed acceptable and also

why other proposals were not recommended or rejected. The degree and extent of analysis relative to the necessity for various elements of cost and supporting judgments are generally not reflected in the documentation. If no mention is made relative to necessity for the various cost elements, it is generally assumed by CGFAB and the NIH Contracting Officer that this area of the contractor's proposal is acceptable.

(b) Business Evaluation Function

The analysis of reasonableness and allowability of costs is an essential part of the business evaluation which requires a review and verification of the direct labor costs, material costs (purchased parts, equipment and subcontracting), overhead rates, travel, etc., to assure reasonableness of the proposed costs. This evaluation should also include an appraisal of the contractor's management capability. In making this appraisal, such factors as the contractor's management organization, past performance, reputation for reliability, availability of required facilities, cost controls (accounting), purchasing procedures, property control methods, financial stability and nondiscrimination (Equal Employment Opportunity) are considered.

Regardless of the scope of the intended procurement, its dollar value, or its complexity, all proposals must be

thoroughly reviewed and the evaluations documented. Obviously, however, the degree of examination required varies with the magnitude and importance of the procurement. In lesser procurements the contractor's organization and management, his efficiency, his cooperation, his existing facilities and equipment, his reliance on outside sources and subcontractors, the reasonableness of his estimated costs, and other such factors must still be considered, though in less detail.

There is little evidence of the degree of analysis performed by Program (Contract Specialists) except in the area of renewals where there generally is a comparison of prior year's costs to the proposed cost for the current year's effort. Documentation of the business evaluation is limited to a comparative cost breakdown. There does not appear to be a direct correlation where total effort to be accomplished is first brokendown into smaller parts to make it easier to compare similar costs with similar efforts (past and present).

The Research Institutes generally do not consult CFGAB or the Contracting Officer prior to entering into discussions (negotiations) with contractors and firming up areas such as work-scope and need for various elements of cost. In fact, at least one Research Institute indicated that there is no need for

CGFAB advice whatsoever and at least one other Research Institute stated that CGFAB's only function is to provide the Contracting Officer advice on such items as overhead, travel and per diem. Still another Institute expressed that there is a certain amount of duplication between the analysis performed by them and CGFAB, especially in the area of renewals. It feels that this duplication will continue to exist unless CGFAB is brought into the procurement cycle earlier. The CGFAB imputs would then be much more helpful. CGFAB is presently not involved during the program proposal evaluation stage. Rather, it is brought in after program has requested RCB to negotiate a contract.

The functions performed by CGFAB in this area are:

Advise on financial responsibility of a proposed contractor

Provide opinion on adequacy of a contractor's accounting system (Susceptible to cost type contracting)

Provide analysis of cost elements contained in contractor's proposal.

The team's review of the CGFAB function disclosed the following:

(1) Cost Advisory Reports to the Contracting Officer frequently contain conclusions without supporting detail.

(2) CGFAB files apparently did not contain support for some of the statements made in their memos.

(3) CGFAB personnel indicated that their analysis relied heavily on information provided orally by contractors. (This bears out the team's view that proposals lacked the necessary cost detail to permit a meaningful analysis.)

(4) CGFAB personnel indicated that cost type contracts limit the need for definitive analysis of individual cost elements.

(5) Site visits are made to new contractors, when possible.

(6) Year-end workload and shortness of notice complicate scheduling of work and adversely affect quality of job done.

(7) On subcontracts, CGFAB does not provide information to RCB on reasonableness of cost of proposed subcontracts, except a statement that the proposed costs are acceptable for funding purposes. RCB does not ask for additional information.

(8) On many other cost elements, the only information provided by CGFAB to RCB is that the proposed costs are acceptable for funding purposes.

(9) Historical data is used in evaluating renewal contracts (straight-line projections). CGFAB makes no effort to base projections on actual performance or expected effort. It does, however, contact contractors in order to determine the volume of outstanding commitments.

(10) Overhead rates:

(a) Educational and nonprofit institutions. Rates negotiated by Division of Grants Administration Policy are accepted and included in report to RCB.

(b) Profit making organizations - where another agency has cognizance, CGFAB obtains audit reports, evaluates them, and makes recommendations to RCB. Where CGFAB has cognizance, it develops the overhead rate and recommends to RCB.

(11) CGFAB personnel indicated that they could do a better job if they were involved with the procurement earlier and were given more time in which to perform their cost analysis work. This would permit them to schedule their work and better coordinate efforts with program in accomplishing a more meaningful job.

(12) RCB personnel indicated that the CGFAB Cost Advisory reports sometimes lack desired detail. If CGFAB data proves insufficient, additional input is requested. In the event RCB does not obtain needed information from CGFAB, either because of time, pressure or availability of CGFAB staff, RCB personnel contact contractors to obtain the information.

(c) Analysis of Cost Information in Establishing a Negotiation Position

Thorough preparation is most important to an effective negotiation. Preparation involves several important steps: (i) gathering the facts, (ii) analyzing both the facts themselves and the many intangibles that will affect subsequent negotiations, (iii) establishing the Government's negotiation objectives on the basis of this analysis, and (iv) planning how to achieve these objectives at the negotiation. These factors are generally reviewed and discussed with the members of the Government negotiation team at pre-negotiation meetings.

The RCB negotiator reviews documentation provided by both program and CGFAB in preparing for the negotiation. The Chief, RCB, expects each negotiator to go through each step regardless of what the program contract specialist may or may

not have done. He indicated that the only way to avoid duplication by Program Contract Specialist and RCB Contract Specialist is to have the complete function assigned to one organization, whatever organization that might be.

The business evaluation is independently performed by the Program Contract Specialist, CGFAB and RCB at different times during the procurement cycle. There is relatively no coordination of this effort to benefit Program, CGFAB or RCB. As previously mentioned, upon completion of the evaluation by Program (scientific and business) negotiations are held without benefit of CGFAB and RCB inputs.

The Contracting Officer who is responsible for the entire procurement is not privy to all the necessary evaluation/ negotiation inputs required for the effective performance of his function. No team pre-negotiation position is established and very few pre-negotiation meetings are ever held. Since the Contracting Officer does not control or coordinate the procurement, he is not in a position to seek advice in establishing a negotiation position, but is presented with, and must accept a fait accompli.

(d) Property Under Contracts

The necessity for Government-owned property is analyzed by the Contracting Officer prior to entering into negotiations.

RCB attempts to negotiate out all property possible. As regards the matter of giving a contractor general purpose equipment, RCB personnel indicated that their policy is to authorize use of special purpose equipment only, unless general purpose equipment is specifically approved by program as needed. Office equipment is frequently negotiated out by RCB. The team did not observe the same situation with regard to general purpose scientific equipment. The amount of property under contracts is estimated at about 13 million dollars.

In the past, the amount of funds allowed in a contract for equipment has often been approved for funding purposes without actually definitizing equipment needs. The Chief, RCB, stated that RCB plans to start definitizing equipment needs and include in the contract only that equipment actually determined to be needed. This will do away with the need for prior approval at time of purchase of the equipment named in the contract. (This action was recommended by Management Survey Review Branch, NIH in its report to the Supply Management Branch, NIH on Government-owned property in contractors' plants.) Team members suggested that a time limit, based on time of predicted need, be specified in the contract for purchase of equipment without the need for additional approval.

Screening for available excess equipment to fulfill contractors' needs is apparently done late in the procurement cycle. The Chief, RCB, agreed with the team suggestion that such screening should be carried out as early as possible and that there be continuous screening until equipment actually is procured by the contractor.

The Contracting Officer requests the Property Administrator to screen for available property subsequent to receipt of Program's request for contract. The Property Administrator informed us that his search is limited to personal knowledge rather than a systematic control for utilizing available property. He contacts each Institute to determine what is available. However, the Institutes do not have complete records by nomenclature on what is available or when equipment might become available. Again this is based on personal knowledge. Institutes apparently consider property to be of a proprietary nature and are often unwilling to release it for another Institute's use even if it is not currently needed by the owning Institute. The view frequently is that the owning Institute may need the property at some future date and would then have to commit its funds to buy such property if it did not retain what it now owns. Funds used to purchase

property are those appropriated to an Institute. This fact contributes to the proprietary attitude of the Institute. It is very seldom that items are picked up for use by another Institute on a contract. If items are picked up, they generally are not of great value or may require repair.

The Property Administrator's system of control does not include a method for determining availability dates of property being used under NIH contracts so that he could know when it might be available for redistribution to other contracts.

The Property Administrator informed us that an Institute itself will frequently redistribute property from one contract to another. However, it appears that when this is done, it is from one contract to another with the same contractor. He also stated that he screens available NIH excess property in order to obtain equipment that could fulfill contractors' needs.

The system of controlling, utilizing and redistributing property for use under contracts is ineffective when limited to "personal knowledge".

OF THIS NATURE IN ACCORDANCE WITH THE AMOUNT OF RESEARCH FUNDS MADE AVAILABLE. NIH SHOULD NOT CONTRIBUTE TO THIS TENDENCY BY INDICATING THE LEVEL OF APPROVED FUNDING PRIOR TO NEGOTIATIONS. IN DEPTH EXPLORATION IN THE FACT FINDING PROCESS OF NEGOTIATION MAY INFLUENCE MORE CAREFUL PLANNING AND MORE PRUDENT EXPENDITURE OF EFFORT ON THE PART OF THE CONTRACTOR.

4. THAT THE EXTENT AND DEPTH OF COST ANALYSIS BE TAILORED TO EACH SPECIFIC PROCUREMENT. SUFFICIENT BACKUP DATA TO PERMIT ACCURATE INTERPRETATION AND ANALYSIS OF ALL THE BUSINESS ELEMENTS OF THE CONTRACTOR'S PROPOSAL IS ESSENTIAL. THE DETAIL OF THE SUPPORTING DATA REQUIRED SHOULD DEPEND UPON THE DEGREE AND COMPLEXITY OF THE SCOPE OF WORK AS WELL AS THE ESTABLISHED DOLLAR VALUE OF THE PROCUREMENT. IF APPLICABLE, INFORMATION SUCH AS THE FOLLOWING MAY BE REQUIRED:

   (a) PRICED OR ESTIMATED BILLS OF MATERIALS

   (b) PAST ACTUALS OF LABOR HOURS

   (c) CHARTS OF MONTHLY APPLICATION OF MANPOWER TO EACH TASK SPECIFIED IN THE WORK STATEMENT. THESE CAN SHOW TIME PHASING OF PERSONNEL AND SKILL LEVELS UTILIZED.

   (d) FORECASTS OF OTHER RESOURCES TO BE USED---MATERIALS, SUB-CONTRACTORS, CONSULTANTS, TRAVEL---ALL TIME-PHASED AND COORDINATED WITH MANPOWER CHARTS.

THAT TECHNICAL AND COST REPORTING INFORMATION BE REQUIRED NOT ONLY FOR MEASUREMENT OF CONTRACTORS' PERFORMANCE BUT ALSO AS AN EFFECTIVE TOOL FOR ESTIMATING AND EVALUATING THE COST OF RENEWALS AND SUBSEQUENT PRO-CUREMENTS FOR SIMILAR WORK.

5. THAT THE CGFAB ADVISORY REPORT CONTAIN SUPPORTING DETAILS SO AS TO PROVIDE THE BASIS FOR THE CONCLUSIONS REACHED AND RECOMMENDATIONS ADVANCED. THIS WILL ASSURE THE CONTRACTING OFFICER THAT THE EXTENT OF CGFAB CONSIDERATION IS IN FACT ADEQUATE AND ACCEPTABLE TO HIM.

6. THAT PROPOSED SUBCONTRACTS BE EVALUATED TO ASSURE REASONABLENESS OF COST PRIOR TO AWARD OF THE CONTRACT. THE CONTRACTING OFFICER SHOULD, WHERE APPROPRIATE, ELICIT FROM THE OFFEROR INFORMATION CONCERNING:

   (a) HIS PURCHASING PRACTICES

   (b) THE PRINCIPAL COMPONENTS TO BE SUBCONTRACTED AND THE CONTEMPLATED SUBCONTRACTORS, INCLUDING i) THE DEGREE OF COMPETITION OBTAINED ii) COST OR PRICE ANALYSES OR PRICE COMPARISONS ACCOMPLISHED, INCLUDING ACCURATE, COMPLETE AND CURRENT COST OR PRICING DATA, AND iii) THE EXTENT OF SUB-CONTRACT SUPERVISION.

   (c) THE TYPES OF SUBCONTRACTS

   (d) THE ESTIMATED TOTAL EXTENT OF SUBCONTRACTING.

   THE SAME EVALUATION PROCESS EMPLOYED IN EVALUATING A PRIME CONTRACTOR'S ESTIMATE SHOULD BE APPLIED.

7. THAT AN AUDIT REVIEW AND EVALUATION OF A CONTRACTOR'S PROPOSAL BE PERFORMED ON MAJOR PROCUREMENTS. THIS IS DESIRABLE AND NECESSARY AS PART OF AN EFFECTIVE COST ANALYSIS PROCESS.

8. THAT GREATER CONSIDERATION BE GIVEN TO CONDUCTING SYSTEM REVIEWS (I.E. PURCHASING PROCEDURES, PROPERTY CONTROL METHODS, COST CONTROLS

(ACCOUNTING), ETC.) OF THOSE CONTRACTORS HAVING A SIGNIFICANT NUMBER OF PROCUREMENTS WITH NIH. ONCE A CONTRACTOR'S SYSTEM HAS BEEN REVIEWED AND APPROVED, HE WOULD FOR EXAMPLE, BE PERMITTED (WITHIN THE LIMITATIONS ACCOMPANYING THE APPROVAL) TO AWARD SUBCONTRACTS WITHOUT PRIOR REVIEW AND APPROVAL BY THE CONTRACTING OFFICER. A SYSTEMS REVIEW PRIMARILY AIMS AT PREVENTING DEFICIENCIES BY ISOLATING AND CORRECTING THE PROBLEMS OF A CONTRACTOR'S SYSTEM BEFORE THEY OCCUR.

9. THAT THE OVERHEAD RATES WITH PROFIT MAKING ORGANIZATIONS BE NEGOTIATED OR, AS A MINIMUM, BE CENTRALLY CONTROLLED AT THE DHEW LEVEL. THIS WOULD BE SIMILAR TO THE PROCEDURE PRESENTLY EMPLOYED BY DHEW IN ESTABLISHING OVERHEAD RATES WITH EDUCATIONAL AND NONPROFIT INSTITUTIONS.

10. THAT THE SAME EMPHASIS BE GIVEN TO NEGOTIATING OUT OF GENERAL PURPOSE SCIENTIFIC EQUIPMENT AS IS PRESENTLY ACCOMPLISHED WITH REGARD TO OFFICE EQUIPMENT. EQUIPMENT DETERMINED NECESSARY FOR USE UNDER THE CONTRACT SHOULD BE SPECIFICALLY IDENTIFIED IN THE CONTRACT.

11. THAT A SYSTEMATIC CONTROL FOR UTILIZATION AND REDISTRIBUTION OF AVAILABLE PROPERTY BE ESTABLISHED. THIS WOULD PERMIT EFFECTIVE SCREENING FOR AVAILABLE EXCESS PROPERTY EARLY IN THE PROCUREMENT CYCLE, THEREBY LIMITING CONTRACTOR ACQUISITION OF PROPERTY AND GREATER UTILIZATION OF EXISTING GOVERNMENT-OWNED PROPERTY (G.O.P.) WHICH UNDER NIH CONTRACTS IS ESTIMATED TO BE ABOUT 13 MILLION DOLLARS.

12. THAT NIH INVESTIGATE THE FEASIBILITY OF CENTRAL CONTROL AND ACCOUNTABILITY OF GOP SO THAT GOP NOT BE CONSIDERED PROPRIETARY TO THE

SPONSORING INSTITUTE BUT RATHER SUSCEPTIBLE FOR UTLIZATION BY ALL SEGMENTS OF NIH. THIS MAY ENABLE MORE EFFECTIVE UTILIZATION OF AVAILABLE GOP AND LIMIT THE NECESSITY FOR PURCHASING EQUIPMENT UNDER CONTRACTS.

13. THAT SITE VISITS AND/OR DISCUSSIONS WITH PROSPECTIVE CONTRACTORS DURING THE EVALUATION STAGE BE CONDUCTED BY A TEAM OF TECHNICAL AND CONTRACTING PERSONNEL. CONSISTENT WITH GOOD PROCUREMENT PRACTICES, THESE DISCUSSIONS SHOULD BE RESTRICTED TO TECHNICAL AND MANAGEMENT MATTERS. PRICE AND COST ESTIMATES ARE NOT TO BE DISCUSSED AT THIS TIME. IT SHOULD BE MADE CLEAR TO THE PROSPECTIVE CONTRACTORS THAT THESE DISCUSSIONS ARE NOT TO BE CONSTRUED AS THE COMMENCEMENT OF NEGOTIATIONS BUT RATHER FOR EVALUATION PURPOSES.

14. THAT PRIOR TO ANY NEGOTIATION (TECHNICAL OR OTHERWISE) A COORDINATED TEAM-NEGOTIATION POSITION BE ESTABLISHED WITH ADEQUATE CONSIDERATION GIVEN TO ALL THE PERTINENT FACTORS INVOLVED AND THEIR INTERRELATIONSHIPS. WHERE COMPLEX PROCUREMENTS ARE INVOLVED, THIS SHOULD BE ACCOMPLISHED THROUGH FORMAL PRE-NEGOTIATION MEETINGS.

C. Conduct of Negotiations

1. General

Normally the negotiation of a definitive contract begins after review of the technical and business aspects of the offers received and evaluation of the technical and business qualifications of the prospective contractors (selection of the source(s)). Basically, negotiation entails (a) reaching agreement with a proposed contractor on the scope of work, estimated cost, delivery or performance period and other provisions that directly or indirectly influence his performance of the contract; (b) setting forth these terms in a mutually acceptable contractual document; and (c) documentation for the records, justifying the contract negotiated.

2. Findings

Institutes have discussions (negotiations) with contractors and reach decisions on work scopes, budgets, etc. except that NCI and NINDS do not conduct such discussions when new competitive procurements are involved. As a result of such discussions and decisions, revised proposals are often received from contractors. On new competitive procurements, NCI and NINDS often conduct site visits but discussions are supposed to be restricted to technical matters.

All Institutes except NINDS inform the selected contractor of the selection. In most cases, he is also informed of the level of approved funding, subject to RCB negotiation. The contractor, therefore, may be aware of program approval prior to RCB being aware of his selection.

A number of responsible Institute officials informed us that they consider the RCB function as being one of formalizing what has already been agreed upon between the Institute and the contractor. One official went so far as to say that RCB's major contribution in this area is "keeping everything legal".

In NLM the Contracting Officer and program officials are involved in negotiations. Commitments and agreements are made by the Contracting Officer with advice of program. Sufficient information was not available to determine the extent of contact with potential contractors by program officials prior to contracting officer involvement. (There were very few contracts available to review which were awarded subsequent to NLM utilizing its contracting authority.)

In BEMT, it appears that program, through informal technical discussions, conducts negotiations at which time scope is developed along with a budgetary estimate. Available records do not reveal details of these negotiations. There is an absence of early

involvement by the contracting officer, who in most instances, just formalizes prior actions and makes awards. Little evidence of "real" negotiating by contracting personnel was found.

CGFAB, upon the Contracting Officer's request, participates in negotiations. Our review of contract files did not indicate frequent participation by CGFAB in negotiations. CGFAB personnel felt that contracts frequently have in fact been negotiated by program prior to submission of program memo to RCB. This includes new competitive procurements as well as renewals.

The Chief, RCB, stated that in depth negotiations are conducted at contractor's facilities (Summaries of Negotiations in files reviewed did not reflect this type of negotiation). The RCB negotiator checks to see if personnel listed in the proposal are actually on board, if the contractor is tooled up to start work, etc. The Chief, RCB, estimates that about 30% of all negotiations are handled as described and that the remainder requires very little negotiation. He also said that negotiators, from past experience, often know whether a contractor's estimating practices are liberal or conservative. Presumably, this would have a bearing on the type of negotiation held. The team noted that a large number of negotiations were conducted by telephone. This would include large dollar contracts for over 1 million dollars. The Chief, RCB, indicated that negotiations are sometimes conducted with two

or more offerors; however, this occurs in less than 10% of the new competitive contract cases.

Upon completion of technical discussions (negotiations by Program), the Institutes/Divisions submit the Contractor's revised proposal to the Contracting Officer with a formal request to negotiate a contract. It is at this point that the Contracting Officer forwards said proposal to CGFAB for a cost advisory report. The attached Exhibit 1 which shows the amount of the contractor's proposal, the amount recommended by CGFAB, and the amount finally negotiated reflects the degree of RCB and CGFAB negotiation inputs.

It is noted that in numerous instances, the contract price negotiated is identical to the contractor's proposal as received by the Contracting Officer from program, or very close to it. In those instances where large variations appear, this is not due to a negotiation of the original requirement in the proposal as received by RCB, but rather to circumstances such as a downward adjustment of the scope of work because of fund limitations, the application of unexpended funds, or in some cases the decision to eliminate certain equipment items.

Within NIH there are two independent negotiation positions established and two individual negotiations conducted for each procurement. One by the Institute (Scientist and Program Contract

Specialist), the other by the NIH Contracting and Finance Offices (RCB & CGFAB). The contractor negotiates with "Two Distinct Faces of NIH" and of course as a negotiation tactic may play one against the other.

Documentation relative to the Institutes negotiations is not made part of the contract file and the Contracting Officer is uninformed of the prior agreements reached during that first negotiation. The Contracting Officer (and NIH) is placed in an embarrassing situation when he attempts to negotiate an area which is inconsistent with that already agreed to by the program representatives.

RECOMMENDATIONS

1. THAT THE CONTRACTING OFFICER FUNCTION NOT BE CONSIDERED SOLELY AS A "REVIEW AND TELEPHONIC RATIFICATION OF NEGOTIATIONS" FUNCTION BUT RATHER ONE WHICH ENTAILS EARLY PARTICIPATION AND COORDINATION OF THE NEGOTIATION PROCESS.
2. THAT NEGOTIATIONS NOT BE UNDERTAKEN UNTIL ALL FACTORS (i.e., TECHNICAL, BUSINESS, FINANCIAL, LEGAL, ETC.) HAVE BEEN REVIEWED, COORDINATED AND A TEAM POSITION ESTABLISHED. THIS WOULD PERMIT CONSIDERATIONS OF ALL SALIENT POINTS AT THE NEGOTIATION BY ONE NIH NEGOTIATING TEAM.
3. THAT INFORMATION REGARDING SELECTION AND APPROVED FUNDING LEVEL NOT BE MADE KNOWN TO THE SELECTED CONTRACTOR PRIOR TO FINALIZING NEGOTIATIONS.

4. THAT THE CONTRACTING OFFICER BE INVOLVED DIRECTLY WITH ALL PERSONNEL OF THE NEGOTIATION TEAM WITH SUFFICIENT LATITUDE SO THAT HE MAY AVAIL HIMSELF OF THE NECESSARY EXPERTISE TO MAKE DETERMINATIONS AND DECISIONS LEADING UP TO THE NEGOTIATION AND AWARD OF A CONTRACT.

5. THAT THE CONTRACTING OFFICER (THE NIH OFFICIAL WITH CONTRACTING OFFICER AUTHORITY) CONDUCT NEGOTIATIONS OF ALL ASPECTS OF THE PROCUREMENT ASSISTED BY NECESSARY PROGRAM, FISCAL AND LEGAL PERSONNEL, ETC.

D. Documentation and Substantiation of Negotiated Agreement

1. General

Each contract should be fully documented to provide a complete chronological history of all actions related to the contracting aspects of a procurement. The contract file should contain documents, data, and memoranda sufficient to explain and support the rationale, judgments, and authorities upon which all decisions and actions were predicated.

2. Findings

A review of the documentation revealed the following:

a. The documentation in the Institute contract files appeared inadequate in supporting (1) the cost/price analysis and (2) discussions (negotiations) with contractors and decisions reached as a result of these discussions.

b. At NLM the documentation was considered inadequate. The Contracting Officer explained to the team that all files he had were relatively new and that he was in the process of developing necessary documentation. Notwithstanding the newness of the files, the team feels that adequate documentation to support the awards should have been developed.

c. The documentation reviewed at BEMT was also considered inadequate. A memorandum entitled "Evaluation, Recommendations and Determination" is used as a Summary of Negotiations but is considered inadequate for this purpose. No explanation of negotiation and basis for agreement is made nor is there evidence of a team approach to negotiations.

d. The documentation supporting the CGFAB report appeared weak and inadequate.

e. The Summary of Negotiations as prepared by RCB is considered sketchy. It does not reflect any degree of analysis performed by the negotiator in establishing a pre-negotiation position. In most cases, it merely reiterates the CGFAB report. The character and conduct of negotiations are not reflected. Considerations relevant to reasonableness of cost and fee are not substantiated, i.e., amounts are included in contract for funding purposes without showing basis for the amount awarded. In some instances, conflicting statements were contained in CGFAB and program memos which were not reconciled in the negotiator's summary.

f. Generally speaking, the documentation reviewed appeared stereotyped in form and content notwithstanding the nature, complexity and dollar value of the procurement. With the exception of the technical evaluation (excluding cost) and selection of a source, the documentation generally proved inadequate from the standpoint of providing complete and sufficient information to support the judgments made and the actions taken.

RECOMMENDATIONS

1. THAT GREATER CONSIDERATION BE GIVEN TO TAILORING THE DOCUMENTATION SO AS TO BE IN CONSONANCE WITH THE NATURE, COMPLEXITY AND DOLLAR VALUE OF THE PROCUREMENT.
2. THAT INCREASED EMPHASIS BE GIVEN IN FULLY DOCUMENTING AND JUSTIFYING THE PROCUREMENT DETERMINATIONS SO THAT EACH CASE CAN STAND ON ITS OWN FROM A CONTRACTING STANDPOINT, I.E., SELECTION OF SOURCE(S) TO BE SOLICITED, TECHNICAL EVALUATION OF PROPOSALS RECEIVED AS IT RELATES TO NECESSITY AND PROPRIETY OF PERSONNEL (LABOR), REASONABLENESS OF EFFORT, TYPES AND QUANTITIES OF MATERIALS, NECESSITY FOR TRAVEL, ETC.
3. THAT THE CONTRACTING OFFICER BE RESPONSIBLE FOR DELINEATING THE NATURE OF ASSISTANCE REQUIRED OF ADVISORY ORGANIZATION (i.e., TECHNICAL, FINANCE, LEGAL, PROPERTY). DOCUMENTATION OF THE ADVICE PROVIDED SHOULD INCLUDE THE BASIS FOR THE RECOMMENDATIONS, IDENTIFYING THOSE AREAS OF OPINION AND THOSE OF VERIFIED FACT.

4. THAT THE SUMMARY OF NEGOTIATIONS AS PREPARED BY THE CONTRACTING OFFICER CONTAIN SUFFICIENT DOCUMENTATION TO SUPPORT ALL THE PROCUREMENT DETERMINATION MADE. EACH MAJOR ELEMENT OF THE REQUIREMENT IS TO BE DISCUSSED INCLUDING THE TECHNICAL EVALUATION AND COST ADVISORY REPORT. COST FACTORS AND THEIR JUSTIFICATIONS SHOULD BE CLEARLY STATED IN SUFFICIENT DETAIL TO ESTABLISH THE REASONABLENESS OF THE NEGOTIATED AMOUNT. SIMILAR CONSIDERATION SHOULD BE GIVEN TO THE AMOUNT OF PROFIT OR FEE AGREED TO.

EXHIBIT 1

NHI

		Amount of Proposal	Cost Recommended by CF&AS	Amount Negotiated
68-0689	University of Wisconsin	$ 32,540	$ 32,540	$ 32,540
68-0649	Battelle Memorial Institute	125,000	126,680	124,070
68-1279	Buffalo General Hospital	43,208	36,257	36,257
68-687.	Mallory Institute of Pathology	73,282	73,282	73,282
68-1390	Esso Res/Eng Co. (Union Carbide)	72,400	72,400	71,000
68-1391	Consumer Products Div, NYC	93,025	93,025	87,754
68-1436	Case Western Reserve Univ.	24,980	20,000	20,000
68-1429	University of Washington (Seattle)	40,241	40,241	65,000
68-1331	University of Rochester	1,587,511	1,587,511	750,000
	Rev.	781,580	781,580	635,000
67-1362	Department of Health, Michigan	69,584	69,584	70,135
67-1458	G.E., Schenectady	114,502	77,661	74,245
66-0979	Dow-Corning Corporation Rev.	67,000	66,251	66,721
67-1116	Thermo-Electron Corporation	200,000	198,903	198,867
67-1444	Johns Hopkins University	641,848	Insuff.Time	348,000
67-1366	Health Research, Inc.	54,847	25,000	16,600
65-0038	University Hawaii	32,493	32,446	32,493

NINDB

		Amount of Proposal	Cost Recommended by CF&AS	Amount Negotiated
	RENEWALS			
64-0513	Microbiological Laboratories	$151,615	$147,511	$147,070
66-0036	Columbia University	37,762	36,484	23,884
64-0054	Columbia University	311,750	26,000	26,000
67-1136	Michigan University	162,954	159,382	159,380
	NEW			
68-0048	Informatics, Inc.	60,200	60,000	59,075
68-0015	Boston Hospital for Women	55,888	52,210	53,885
68-0004	Children's Hos. of Phila.	657,135	643,309	613,109
68-0042	Gulton Medical Institute	4,164	4,164	4,164
68-0671	Hazleton Laboratories	19,600	19,600	19,600

NCI

	RENEWALS			
64-0015	Iowa State University	22,185	26,333	20,933
66-023	New York Medical College	16,032	16,032	16,000
65-0016	Wyeth Laboratories	22,647	85,647	36,489
64-0941	Microbiological Laboratories	657,617	632,617	599,700
65-1017	Chicago Park District	22,039	4,531	1,500
66-0098	Chas. Pfizer and Co.	1,517,579	1,517,579	1,475,000
64-504	University of Pittsburgh	32,000	32,000	32,000
65-616	Health Research, Inc.	358,764		

NCI

67-0735	Bionetics Research Labs.	$ 20,338	$ 19,330	$ 20,262
65-044	Health Research	13,500	13,500	15,700
68-1030	Univ. So. Calif. Med. School	549,213	530,267	546,767
	NEW			
68-981	Computer Usage Development	60,509	58,510	60,000
68-1389	University of Padua	7,938	7,938	7,938
68-1297	Pasadena Foundation of Medical Research	34,895	34,895	34,895
68-0080	Melpar, Inc.	65,825	59,943	64,955
68-1304	Jefferson Medical College	66,548	71,690	71,690
68-0968	IBM	3,620	3,620	3,620
68-1283	Microbiological	1,926,877	1,824,693	1,842,000
68-0682	A. R. Schmidt Co., Inc.	66,300	66,300	66,300
68-0704	Boston University			
68-0068	Simonsen Labs., Inc.	37,411	29,853	28,630
68-0045	Chas. Pfizer	1,175,781	1,175,781	1,170,000
68-0002	Laboratory Supply Company			
63-0620	Univ. of Puerto Rico	253,308	253,308	253,308
64-0102	Amer. Natl. Red Cross	142,253	142,253	142,253
65-0044	Health Research, Inc.	1 yr/53,190	1 yr/62,806	90 dy/15,700
66-0051	Melpar, Inc.	14,160	13,106	13,106
65-1017	Chicago Park District	12 mo/22,039	8 mo/ 4,531	8 mo/ 1,500
65-0061	A. D. Little, Inc.	1,318,181	1,306,353	1,305,000

NCI

NEW Cont.

65-0654	Southern Research	$221,984	$221,984	$221,984
64-0890	University of Miami	56,718	56,718	55,700
66-0914	Micro	59,341	58,741	58,525
67-0723	Tyco Labs., Inc.	31,992	31,992	31,992
61-4351	Research Triangle Institute	92,706	91,697	92,706
69-58	Vitro Labs.	364,277	284,892	273,525
68-1336	Litton Industries	173,007	139,077	99,528
64-0941	Micro	657,617	632,617	599,700

NIAMD

NEW

68-620	Excerpta Medica	58,314	54,696	56,245
68-1028	Franklin Institute	19,747	18,629	19,700
68-951	Columbia University	156,493	162,775	160,800
68-660	International Information, Inc.	103,413	99,612	90,730

RENEWALS

67-109	University of Pennsylvania	154,454	152,843	154,000
66-1132	Stanford Research	49,773	48,115	49,773
66-10	Biodynamics	46,567	46,567	46,450

NLM

67-1470	Ohio State University	$105,397	$104,511	$105,397
68-1330	Booz, Allen - Hamilton	99,804	99,804	96,000
66-486	Bd. of Trustees, Univ. of Alabama	63,317	61,489	60,089
68-1032	Franklin Institute	657,617	632,617	599,700

NIAID

68-99	University of Minnesota	55,593	45,999	54,574
68-1291	U.C.L.A.	30,986	30,986	30,986
68-658	Duke University	37,552	37,172	37,172
68-1263	American Type Culture Collection	96,792	96,792	96,792
68-1246	Baylor University	71,415	52,922	58,445
68-692	Abbott Laboratory	60,328	57,798	52,862
68-1302	Case Western Reserve Univ.	22,825	20,140	22,825
67-1334	Community Blood Council of N.Y.	63,861	60,555	58,600
66-551	Yale University	22,148	22,148	22,148
65-568	Flow Laboratories	161,366	159,174	157,284

BHM

PH-108		Contractor Proposal	FMB Recom.	Amount Negotiated
65-24	American Dental Assn.	$187,470	$124,846	$124,846
65-186	St. Luke's Hospital Center	43,702	43,702	44,773
66-42	Univ. of Tennessee	25,947	25,947	25,788
66-178	Ohio State Univ. RF.	51,037	51,228	49,332
67-102	Univ. of North Carolina	10,000	9,823	9,723
67-163	Baker Trailer Sales & Rentals	15,441	15,186	15,186
67-180	Univ. of Mississippi	1,913	1,913	1,913
67-197	Oregon State Board of Health	86,071	57,890	58,137
67-205	John Sutherland Prod.	394,236	394,236	394,236
67-213	Penn. Dept. of Health	39,216	39,020	32,010
68-14	Univ. of No. Carolina	6,043	5,568	5,568
68-78	Mass. Health Res. Inst.	30,000	30,000	39,479
68-80	National Health Council	99,663	99,663	98,000
68-83	Computer Usage	68,239	68,239	65,000
69-16	Assn. of American Medical Colleges	27,665	27,665	27,665

Chapter VI. Contract Administration

A. General

The contractor is responsible for timely and satisfactory performance of his contract. However, the Government cannot rely entirely on the contractor to make sure that the contract work is progressing as expected nor can it risk poor performance or late deliveries of required items or reports. These failures may cause costly delays in the contract and they may delay or even jeopardize the program of which it is a part. Therefore, it is the responsibility of the Government to monitor contract performance closely to assure that desired effort is being expended and expected results being attained. Such monitoring serves many purposes. For instance: it provides up-to-date information on the status of the project; it may help to isolate performance problems; it helps generate data on costs of specific areas of performance which are often needed for approval of contractors' vouchers; and it may help to determine future funding requirements by comparing actual costs with progress. A breakdown in the administration of a contract can completely undo all the effort and planning expended in the entire contracting process as well as even in the overall program planning process.

Progress on most research contracts is often hard to gauge before completion. Objective scheduling criteria seldom exist and parameters are usually broad and flexible. Researchers may encounter breakthroughs or setbacks that negate earlier progress data. In research contracts,

therefore, monitoring consists largely of technical evaluation. Other progress controls may consist mainly of reports on the contractor's incurred and projected costs and his experienced and projected level of effort.

Progress measurement generally becomes easier in the development phase of procurement. Though the work is not yet repetitive and detailed specifications are still lacking, much of the indefiniteness of research is gone. The experience gained on earlier contracts should provide some standards for comparison. However, the work still depends on the contractor's ability to cope with obstacles he has not met before. Therefore, technical evaluation is still very important in determining the status of development work.

The Government must maintain close touch with technical progress on outstanding research contracts. This can be done either through direct contact with the contractors or through technical status reports. At NIH, contract provisions usually call for reports on the status and results of a contractor's work to be submitted as requested by the Project Officer. Since these reports usually provide Project Officers with most of their information on the progress of the work, they should include all relevant detail. For instance, information provided might include (1) the number and names of key personnel working on the project and the number of man-hours expended, (2) the facilities devoted to the work, (3) the direction of the work, (4) the kind and number of experiments being conducted, and (5) the latest work done, such as: scientific data, observations, predictions, and plans. It is also important to

receive information on problems encountered as well as on efforts being made to resolve them and the effects on costs, schedules, or technical objectives of the contract.

In addition to keeping in close touch with technical progress, it is important to maintain close surveillance over the contractor's financial progress, especially in cost reimbursement type contracts. As well as providing indicators as to contractor's progress, such surveillance provides information that can be helpful in avoiding, or at least anticipating, cost overruns. It also provides the Contracting Officer with the information necessary for authorizing or withholding payments under the contract. Such surveillance could normally be accomplished by requiring financial status reports which could be used to determine the financial status of and to forecast expenditures under the contract. The report might require information such as (1) cumulative expenditures on the contract to date; (2) forecasts of expenditures and commitments for future monthly and quarterly periods; (3) estimates of the total costs to contract completion; and (4) estimated increases in the contract cost ceiling or decreases in estimated costs that may be expected.

It is important to correlate technical and cost information into meaningful data. Cost information, such as rates of expenditure can be compared with the stage of performance. On cost reimbursement contracts, costs are, as a rule, assessed against individual elements of the contract work. This is true even though the cost limitation applies to the entire job. Looking at progress through a coordinated

technical and cost standpoint can provide an accurate picture of the status of the work, and indicate any special questions or problems that exist.

B. Responsibility

The Project Officer is responsible for guiding the technical aspects of a project and for general supervision of the work performed. He also is responsible for checking on the technical progress and for reviewing and approving contractors' vouchers. The Project Officer may authorize changes within the scope of the work as defined in the contract but he is not supposed to authorize changes that require a change in the contract or that affect the price, terms, or condition of an existing contract.

The administrative or contract specialist types within the NIH operating organizations, such as the Institutes, BEMT, and NLM, are responsible for assisting the Project Officer in performing his job. Such assistance usually is in the area of maintaining surveillance over the business aspects of a contract.

RCB personnel are responsible for negotiating changes to an existing contract and for officially authorizing the required prior approvals under a contract, such as overtime and equipment purchases. RCB normally generates contract close-out action, but operating unit personnel normally generate termination action when needed.

C. Performance

1. Technical and Business Monitoring

Our review indicated that Project Officers generally maintain close surveillance over the technical aspects of existing contracts and that they are normally doing a good job of assuring themselves that the contractor's work is technically proceeding satisfactorily and in accordance with expectations. They accomplish this task through such means as site visits, phone contacts, reviews of contractors' vouchers, and requests for and reviews of progress reports. As a result of their surveillance or because of redirection within program needs, Project Officers often shift work emphasis and authorize changes within the workscope of the contract. This is usually accomplished without modifying the contract because the workscopes are normally broad enough to permit the Project Officer great flexibility in directing and redirecting the contractor's work. Generally, neither the redirection of the contractor's work by the Project Officer nor the reasons behind such redirection are adequately documented in the contract files, either Institute or RCB files.

Contract results are frequently discussed during operating unit staff meetings and Project Officers normally are required to report on the results of a contractor's work. These results are described in Annual Reports which are submitted to the Director of NIH. The results of ongoing contract work and

the Project Officers' evaluations of contractors' progress and performance provide the basis for planning and formalizing overall program plans and objectives. They also provide the basis on which to determine whether or not existing contracts should be renewed, and if so, at what level they should be funded.

The business aspects of a contract are usually monitored by the administrative or contract specialist types within the operating units. As part of this monitoring, costs are normally analyzed but not in coordination with the technical analysis. Rather, cost analysis is usually on a straight line basis. For instance, if a contractor had expended 50% of the funds awarded him and he was halfway through the performance period of his contract, it would be anticipated that he was progressing satisfactorily. However, since the contractor's costs are not usually tied together with his technical performance, it appears difficult to predict with any degree of reliability the possibility of either potential overruns or underruns.

In the foregoing illustration everything appeared alright on the surface; however, it would be possible that the contractor could have expended 50% of the funds awarded him but only completed 30% of the work. If costs are not tied together with the technical evaluation, a potential overrun

such as that described here possibly would not be noted. In addition, it is very important that cost and progress projections for the remainder of the contract term, as well as historical data, be used. Straight line projections again are inadequate since, in an example such as the foregoing, it would be possible that the reason 50% of the funds were expended to accomplish only 30% of the work was that there were high initial costs. Possibly even the remaining 70% of the work could take less than the remaining 50% of the funds. Consequently, a straight line projection would give a very misleading picture.

Such cost-technical coordinated surveillance satisfies two needs. First, it satisfies the need to be on top of existing contracts and to foresee potential problem areas such as overruns, underruns, or failures to perform by contractors. Second, since a large percentage of NIH negotiated contracts are noncompetitively renewed, it helps to satisfy the need to have a close feel for actual required costs under an existing contract with a view toward using this information in arriving at a fair and equitable cost for the next year if the contract is renewed.

Usually, the straight line cost analysis performed is based on information contained either in contractors' cost reports which are sometimes required or on a review of the contractors'

vouchers. The information provided by contractors when cost reports are requested is generally not adequate for providing the type of cost-technical evaluations that are needed. In addition, the information contained in contractors' vouchers is wholly inadequate for fulfilling this need. However, this is the primary source for cost information by the operating units. As well as reviewing these vouchers for allowability of costs, which is done by both RCB and operating unit personnel, the operating unit personnel attempt to maintain cost surveillance over contract progress by extracting cost information from the vouchers. This causes much detailed information to be included on the face of contractors' vouchers which, in the opinion of a responsible Office of Financial Management official, is not required for the provisional payments made by NIH. Not only is it not needed, but, in his opinion, the need to audit the detailed information contained on the vouchers significantly slows down the process of paying them and contributes greatly to the long delay (60-90 days) in making such payments. He feels that the cost information needed to effectively manage contracting operations should be submitted in comprehensive cost reports rather than in the contractors' vouchers and that vouchers should not be used as an informal and apparently inadequate cost reporting vehicle. One Institute we reviewed has recognized the need for close cost-technical coordinated

surveillance and informed us that it is developing a cost reporting system that will be tied to the technical evaluation.

With regard to the operating units' technical and cost evaluations, RCB is not normally made aware of contractor progress and performance during the course of a contract unless a problem has arisen which requires Contracting Officer action. At the end of the contract term, the Project Officer is required to submit a statement that the contractor's performance was satisfactory. RCB officials felt that a comprehensive cost reporting system would be helpful in analyzing contractors' cost performance, but they said that even with such a system RCB would still depend primarily on operating unit personnel to call attention to actual or potential problem areas. In addition to relying on operating unit personnel to call problem areas to its attention, RCB relies on contractors to report potential overruns to it when 85% of the funds awarded have been expended. Such reporting is in accord with the requirements of the Limitation of Costs clause of the General Provisions for Negotiated Cost-Reimbursement Contracts. RCB officials stated that NIH contractors generally comply with this provision. Upon receipt of this report from the contractor, RCB sends a letter to the contractor advising him not to expend beyond the full contract amount. A copy of this letter goes to the appropriate operating unit.

The Deputy Assistant Secretary for Finance, DHEW, recently issued for comments a proposed contractors' financial report which would include accrued expenditures. Certain responsible NIH officials said that they believe that this report will be of assistance to financial management personnel but that it will not provide the information necessary for accomplishing good cost-technical evaluations of a contractors' progress and performance.

RECOMMENDATIONS

1. THAT ANY SHIFT IN WORK EMPHASIS OR ANY CHANGES WITHIN THE WORK SCOPE AUTHORIZED BY THE PROJECT OFFICER, ALONG WITH THE REASONS BEHIND SUCH REDIRECTION, BE THOROUGHLY AND ADEQUATELY DOCUMENTED IN THE CONTRACT FILES, BOTH THOSE OF THE INSTITUTE AND THOSE OF RCB.

2. THAT A COMPREHENSIVE CONTRACT COST REPORTING SYSTEM BE DEVELOPED FOR USE BY ALL NIH OPERATING UNITS. THIS SYSTEM ALONG WITH THE NECESSARY TECHNICAL EVALUATIONS SHOULD PROVIDE THE INFORMATION AND PROJECTIONS NEEDED FOR USE IN EVALUATING A CONTRACTOR'S PROGRESS AND PERFORMANCE FROM A TECHNICAL, TIMELINESS, AND COST STANDPOINT. SUCH A SYSTEM SHOULD BE VERY HELPFUL BOTH IN RECOGNIZING POTENTIAL PROBLEM AREAS IN EXISTING CONTRACTS AND IN ANALYZING COSTS FOR RENEWALS OF THESE CONTRACTS. IN ADDITION, IT SHOULD SIMPLIFY AND ACCELERATE THE PROVISIONAL PAYMENT OF CONTRACTORS' VOUCHERS SINCE THE DETAIL NOW REQUIRED ON THESE VOUCHERS MAY NO LONGER BE NECESSARY.

2. Prior Approvals

Negotiated contracts normally include a number of cost areas, such as overtime, travel to meetings, and equipment purchases, which require approval by the contracting officer prior to the contractors' incurring such costs. The NIH procedure is for requests for prior approvals to be addressed to the Contracting Officer. The Contracting Officer submits the request to the appropriate operating unit for review and recommendations on whether or not to approve. Based primarily on the request, the Contracting Officer either approves or disapproves the request. This process can be quite time consuming on occasion and it also puts the Contracting Officer personnel in the position primarily of acting as "middle-man" between the contractor and the operating unit personnel on whom they depend to determine the technical necessity of the contractor's request.

During our review, we found a few instances in which Project Officers gave contractors approval to incur costs which required the Contracting Officer's prior approval. In these instances, payment of such costs was suspended on contractors' vouchers. In each instance, the Contracting Officer retroactively approved the incurrence of such costs and payment was made on a subsequent voucher.

RECOMMENDATION

1. THAT DURING TRAINING SEMINARS AND AS NEEDED, NIH MANAGEMENT CONTINUE TO EMPHASIZE TO PROJECT OFFICERS THAT THEY SHOULD MAKE NO COMMITMENTS TO CONTRACTORS WHICH DO NOT COME WITHIN THEIR AUTHORITY.

3. Management of Government-Owned Property (GOP) in Contractors' Plants

The Management Survey and Review Branch (MSRB), Office of Management Policy and Review, Office of the Associate Director for Administration, Office of the Director, NIH, issued a "Report on Review of Government-Owned-Property Located in Contractors' Plants," dated March 1969. This report covered most of the areas of administering GOP in contractors' plants.

During our review, we examined a draft of the MSRB report and we discussed its findings with appropriate RCB and SMB officials. In our opinion, the points made by MSRB in its report are appropriate and well stated. Therefore, we are attaching as Exhibit 1 the MSRB report which also contains RCB and SMB comments and actions taken, where appropriate.

Following are additional areas involving administration of GOP in contractors' plants:

a. Monitoring of Contractors' Equipment Needs

During the course of a contract, the Project Officer should provide a continuous monitoring over the need for GOP by the contractor. He should be monitoring first to ascertain if the contractor still needs to purchase the equipment included in his proposal. If not, the Project Officer should notify the Contracting Officer who

use by NIH in its other operations. During our review, we saw no evidence that Project Officers have been performing this function, nor did we see evidence that unneeded GOP is being relocated during the course of a contract. It appears that GOP is frequently permitted to remain with a contractor for the duration of the contract for which it was acquired, even though the contract may run for a number of years, and that any redistribution or disposal action is not taken until the contract is closed-out. In fact, MSRB in its report stated that it found a number of items which were not in use and were not needed in the performance of the contract involved. MSRB further stated that several of the items in question were broken and in need of repair and that, according to the investigators, a few items had not been used for several years.

RECOMMENDATION

THAT NIH REQUIRE THAT ITS PROJECT OFFICERS MAINTAIN A CLOSE AND CONTINUING SURVEILLANCE OVER CONTRACTORS' EQUIPMENT NEEDS. THIS SHOULD BE DONE BOTH FOR THE PURPOSE OF AVOIDING UNNECESSARY PURCHASES OF EQUIPMENT BY CONTRACTORS AND FOR THE PURPOSE OF REDISTRIBUTING AS MUCH GOP AS POSSIBLE WHEN IT IS NO LONGER NEEDED FOR THE PERFORMANCE OF THE CONTRACT FOR WHICH IT WAS ACQUIRED.

b. Monitoring by NIH Property Administrator over Need for GOP

The NIH Property Administrator does not establish any record on property to be acquired by a contractor at the time the contractor's request is approved. Rather, he waits until he receives a Form 308 from the contractor telling him that a piece of equipment has been acquired.

If the Property Administrator kept a suspense file on equipment approved for acquisition by a contractor, he could use it to systematically follow-up to see whether the equipment is still needed in those cases where he has not received a Form 308 from the contractor within a reasonable or predetermined period of time. This would help avoid the possibility of a contractor purchasing equipment which he does not need to perform the work called for in his contract. In cases where the equipment is still needed, such a system could also be used to assist in a continuous screening for surplus GOP which might have become available and which could be used to fulfill the contractor's needs and preclude purchasing new equipment. In addition, the use of such a system would automatically provide a check to see that all Form 308's have been received and recorded for GOP acquired by contractors.

RECOMMENDATION

THAT THE NIH PROPERTY ADMINISTRATOR ESTABLISH A SUSPENSE FILE OF ALL EQUIPMENT APPROVED FOR PURCHASE BY CONTRACTORS AND THAT HE USE IT TO SYSTEMATICALLY FOLLOW-UP TO SEE WHETHER THE CONTRACTORS STILL NEED THE EQUIPMENT IF HE HAS NOT RECEIVED A FORM 308 WITHIN A REASONABLE OR PRE-DETERMINED PERIOD OF TIME. WE ALSO RECOMMEND THAT HE USE THIS SYSTEM TO ASSIST IN CONTINUOUS SCREENING FOR AVAILABLE SURPLUS GOP TO SATISFY CONTRACTORS' NEEDS.

c. Donation of GOP to Educational and Non-Profits

NIH usually donates the GOP acquired by educational and non-profit contractors to these contractors at the completion of their contracts. Such donation is based upon the policy set by the NIH Contract Policy Board that each owning operating unit can, at its discretion, donate GOP to the educational and non-profit contractors for whom the GOP was acquired. According to the policy, the property can be donated only upon completion of the contract and only if the recipient contractor agrees that the property will be used for scientific research and that the Government will not be charged for its use should it ever be used on another Government contract or on a grant financed by the Government.

Generally, at the completion of a contract with an educational or non-profit contractor, the owning operating unit determines whether it has a need for the property on another of its contracts and, if not, it informs the Contracting Officer that such property may be donated to the contractor involved if the contractor so requests. The Contracting Officer then enters into an agreement with the contractor on the conditions attached to its accepting the donated property.

The practice of the owning operating unit only screening its own needs precludes other NIH operating units from availing themselves of this property to satisfy any possible needs they

may have. Consequently, they have to purchase new equipment to fulfill needs which might have been satisfied had an owning unit screened all NIH needs when it had equipment no longer needed under its contracts. It appears that it would be to NIH's advantage to satisfy all its property needs before donating such equipment since this would preclude the need to expend funds and also because there is no guarantee that the recipient contractor will actually make full utilization of the donated property. Rather, it is possible that such property may even stand idle part or a good bit of the time while in his possession.

RECOMMENDATION

THAT ALL PROPERTY BE SCREENED FOR NEED THROUGHOUT ALL OF NIH BEFORE A DECISION IS MADE TO DONATE IT TO THE CONTRACTOR INVOLVED.

d. System for Determining Availability Dates of GOP

The NIH Property Administrator does not have a system for determining the dates at which GOP in contractors' plants, is expected to become available for relocation; for instance, contract completion dates. Such a system is of great importance in making property from an expiring contract available for use elsewhere. However, even if such a system were installed and in operation, it would be ineffective as long as the operating units maintain control over the property purchased with their funds and they do not feel any need to use property not currently needed by them to fulfill other NIH needs.

RECOMMENDATIONS

1. THAT THE PROPERTY ADMINISTRATOR DEVELOP AND INSTALL A SYSTEM FOR DETERMINING WHEN GOP IN CONTRACTORS' PLANTS WILL BECOME AVAILABLE FOR RELOCATION.

2. THAT CONTROL OVER RELOCATION OF GOP IN CONTRACTORS' PLANTS BE ASSIGNED TO THE CENTRAL NIH PROPERTY ADMINISTRATOR RATHER THAN BEING LEFT WITH THE OPERATING UNITS WHERE FUNDS WERE USED TO ACQUIRE THE PROPERTY.

e. Resolution of Problem Areas

During our review, we noted that, when problems develop concerning GOP in contractors' plants, they are often handled very informally. There appeared to be little documentation concerning the problem and, in addition, the Contracting Officer has normally not been apprised of problems encountered. Therefore, little contractual action has been taken to correct these problems. For instance, MSRB reported that a number of items of GOP were found to be missing during physical inventories of the GOP located in contractors' plants but official action was not taken to resolve these discrepancies. In fact, some of these items were missing for more than three years without any official action being taken.

RECOMMENDATION

THAT THE NIH PROPERTY ADMINISTRATOR FULLY DOCUMENT ALL PROBLEMS ENCOUNTERED AND ALL ACTIONS TAKEN BY HIM. IN ADDITION, THAT WITHIN A REASONABLE PERIOD OF TIME HE APPRISE THE CONTRACTING OFFICER OF ANY PROBLEMS ENCOUNTERED WHICH HE HAS NOT BEEN ABLE TO RESOLVE SO THAT OFFICIAL ACTION CAN BE TAKEN TO RESOLVE ALL PROBLEMS ON A TIMELY BASIS.

D. Contract Terminations

Within NIH, there were only four terminations in FY 1968, all for convenience of the Government. All of these are being actively processed at this time.

The general principles applicable to termination and settlement of both fixed price and cost-reimbursement contracts terminated for the convenience of the Government are contained in the Federal Procurement Regulations (FPR), subpart 1-8.2. Additional principles for the settlement of fixed-price and cost-reimbursement contracts terminated for convenience are set forth in the FPR, subparts 1-8.3 and 1-8.4, respectively.

The General Provisions of NIH negotiated contracts all contain a "Termination for Convenience" clause. In general, these provisions allow the contractor to submit a claim within one year from the date of termination for costs incurred on the portion of the work that was cancelled. The contractor's claim is then settled through negotiation.

Within RCB, authority to issue and settle terminations for convenience has been delegated to the heads of the Negotiation Units. This results in these terminations being handled in various Units, dependent upon the part of the alphabet in which the name of the contractor falls. Management of RCB, at the branch chief level, was not in a position to readily provide the number or status of current terminations. Rather, it was found necessary to contact each Negotiation Unit for this data. There

is no central RCB record of these termination cases and, therefore, no control to insure that the necessary steps in settling a termination are indeed being taken in a timely manner.

We were able to establish that in fact these steps are being taken and that these open termination cases are being processed in accordance with accepted procurement (termination) practices.

Admittedly, both the number and dollar amounts of these open termination cases are small. We feel, however, that lack of current knowledge by the Office of the Branch Chief on the status of these cases can lead to a lack of control.

RECOMMENDATION

THAT THE CURRENT STATUS OF ALL OPEN TERMINATION CASES BE MONITORED AND MAINTAINED IN THE BRANCH CHIEF'S OFFICE, AND CONTROLS ESTABLISHED SUFFICIENT TO INSURE THAT THE NECESSARY STEPS IN SETTLING A TERMINATION ARE BEING TAKEN IN A TIMELY MANNER.

E. Contract Close-Outs

Contract close-outs, except in BENT and NLM, are initiated by RCB sending a memorandum to the operating unit informing it that the contract is nearing completion. If the operating unit does not inform RCB that the contract is to be extended, RCB sends a letter to the contractor telling him that the contract will not be renewed and that any costs incurred by the contractor after the expiration date will not be allowable for reimbursement under the contract. In addition, the letter asks the contractor to submit as soon as possible his final inventory of GOP and reports required by the certain clauses of the General Provisions of the contract. For the sake of efficiency and expediency, it would appear desirable to set a reasonable time limit in which the contractor must submit the required material, rather than requesting it "as soon as possible."

With regard to satisfaction with the contractors' performance under his contract, RCB looks to the Project Officer to provide it a statement as to whether or not the contractor has performed satisfactorily and in accordance with the scope of his contract.

During our review, we noted that close-out actions on a number of physically completed contracts were taking extended period of time. For instance, out of 722 contracts physically completed as of February 1969, 195 or about 27% had been completed for at least three years. Following is a summary of all 722 completed contracts:

Calendar Year Completed	Number
1968	262
1967	145
1966	130
1965	80
Prior to 1965	105
Total	722

In general, close-out procedures require such actions as obtaining contractors' releases, resolving any outstanding problems, such as patent problems, obtaining final audits and resolving any exceptions taken by the auditors, and firming-up final overhead rates.

The steady increase in the number of NIH negotiated contracts is causing an equivalent increase in completed contracts. Consequently, a backlog is and has been building up. To further compound RCB's job of taking close-out actions, the person who was assigned to handle all such actions has been on extended sick leave. Therefore, in December 1968, the close-out workload was distributed to other staff members of the RCB Administrative Unit to handle in addition to their other duties. In addition to taking this action, overtime has been utilized in an effort to reduce the close-out backlog but progress has been slow. On an average, about 20 contracts are being closed out every month.

There is normally some delay in closing-out completed contracts due to such necessary actions as requesting final audits and resolving the auditors' exceptions (this action can usually be expected to take about two years). However, we do not believe that the large backlog of contracts which have been physically completed for long periods of time but not yet closed-out is justified. In addition, the ever increasing

workload of completed contracts is compounding this problem.

RECOMMENDATIONS

1. RCB MANAGEMENT DIRECT MORE ATTENTION TOWARD ATTAINING TIMELY CLOSE-OUT ACTIONS WITH REGARD TO COMPLETED CONTRACTS. THAT RCB MANAGEMENT ISSUE PROCEDURES TO BE FOLLOWED IN CLOSING-OUT COMPLETED CONTRACTS AND THAT AN INTERNAL CONTROL SYSTEM BE ESTABLISHED TO INSURE THAT THE NECESSARY CLOSE-OUT ACTIONS ARE TAKEN EXPEDITIOUSLY.

2. THAT RCB SET A REASONABLE TIME LIMIT WITHIN WHICH CONTRACTORS MUST SUBMIT REQUIRED MATERIALS, SUCH AS SPECIAL REPORTS AND INVENTORIES OF GOP, RATHER THAN USING THE VAGUE "AS SOON AS POSSIBLE" TIME REQUIREMENT NOW USED. THIS SHOULD EXPEDITE THE RECEIPT BY RCB OF MATERIALS NEEDED FROM THE CONTRACTOR.